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E-BUSINESS IN FASHION INDUSTRY  
TAMPERE UNIVERSITY OF TECHNOLOGY  
Master of Science Thesis

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## ABSTRACT

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This paper focus on the topics related to e-business. With the fast development of e-business in fashion industry, more and more companies have realized e-business is an indispensable part for companies. However, many companies are hesitating to adopt this new way to deal with their business, especially in downstream supply chain because of the barriers caused by characteristics of fashion products. By analyzing three cases, the author will attempt to define suitable strategies and technology tactics for different companies.

The author of this article provides three cases, including Park & Bond, jcpenny and Amazon.com. And these three companies are analyzed in five aspects. The first one is e-business priorities, which mainly focus on multi-channel strategy. The following one is e-business model and market structure. The fourth aspect is marketing strategy and customer relationship management. This contains tactics of product, price, place and promotion; as well as stages, including customer acquisition management, customer retention management and customer extension management. The last one is the analysis of the technologies, including technologies used by three companies for their platforms, product presentations and interactions with customers.

By comparing three cases, author makes several conclusions. First is optimized multi-channel strategy for different kind of companies according to their strategies and target customers. Second is the e-business models used by three companies in case study and developing trend of e-business model in the future. Third is different companies' roles in the disintermediation and reintermediation processes. Fourth is to analyze the market structure. Fifth is defining essential and necessary technologies used by companies, also evaluated 3D modeling and fitting technologies' importance for companies.

## **PREFACE**

This master thesis is a result of the study during my graduation at Tampere University of Technology. I would like to thank several people who gave me support during the days of writing.

The special thanks is going to give Heikki Mattila and Milka Mustonen, for their support and guidance. To my family, who backed me all the time throughout the research process. And to my friends, for encouraging me and inspring me.

Tampere, 4th of June 2013

Yuanyuan Zhang

## LIST OF SYMBOLS AND ABBREVIATION

AHP	Analytic Hierarchy Process
API	Application Programming Interface
ASP	Application Service Provider
B2B	Business to Business
B2C	Business to Customer
CAD	Computer Aided Design
C2B	Customer to Business
C2C	Customer to Customer
CRM	Customer Relationship Management
EDI	Electronic Data Interchange
EDM	Electronic Document Management
ERP	Enterprise Resource Planning
ICT	Information and Communication Technology
IT	information technology
LAN	Local Area Network
NURBS	Non-uniform rational B-spline
PDM	Product Data Management
PLM	Product Lifecycle Management
PPC	Pay per Click
QR	Quick Response
RFID	Radio Frequency Identification
SaaS	Software-as-a-Service
SCM	Supply Chain Management
SEM	Small Enterprise Manufacturer
VPN	Virtual Private Network

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# **1. INTRODUCTION**

## **1.1. Background and Motivation**

The Internet and the society have interacted with each other, and they are also the driving force for the developments of each other. More and more people choose to purchase on the Internet, including fashion products. According to Forrester forecast, the compound annual growth rate of sell-side e-commerce all over the world is 9%, from 2010 to 2013 (Blume 2011). In addition, Mintel projected the compound annual growth rate of online fashion market will be 9.9% from 2010 to 2015 (Enright 2011). On the other hand, many companies are investing in technologies related to the Internet, which will revolutionize the way of shopping. Therefore, the society and the Internet are developing in a complementary way.

However, the fashion product, as one of the top categories purchased online in the majority of Western Europe, is heavily relying on the traditional way of sale (Lewis 2009). The adoption level of e-business in the fashion industry is relatively lower than other industries such as the automotive industry, IT industry, etc (e-business Watch 2005). This unbalance in the fashion industry between the society and the Internet tells companies to pay more attention to e-business adoption. In fact, most companies have realized the importance of e-business adoption. Therefore, the main purpose of this thesis is to provide useful information for fashion industry companies by analyzing e-business strategies and tactics of different companies. E-business strategies include e-business priorities, e-business models, market structure, marketing and relationship management, and technologies.

## **1.2. Research Methodology**

The methodology of this paper is firstly based on literature review on e-business in the fashion industry, and secondly on case studies of three companies practicing e-business. The cases are not meant to cover all different types of e-business models applied in the fashion industry, but rather to be representative through using different strategies and technologies. The empirical examples used in this thesis consist of three case companies. Publicly available resources, such as financial reports, trade journals were used to gather information. In addition, contacting companies via emails was also a method of collecting data.

## **2. E-BUSINESS IN FASHION MARKET**

### **2.1. E-business in General**

#### **2.1.1. E-business Defined**

The e-business terminology has been changed rapidly as well as the technology and its application. There is no need to take any effort in precise examination of every term. However, the declaration of some terms is necessary for illustration and defining the scope of research.

E-business is defined as “the conduct of business among e-enterprise and consumers” (Anderson Consulting 1999). Many people even simply see e-business as buying and selling using the Internet such as purchasing products from Nike online shops. In fact, except the financial transactions between customers and organizations, many other activities are considered as e-business from the perspective of the following definition: all electronically mediated information exchanges between an organization and its external stakeholders (Chaffey 2002). Therefore, many activities, including customers requesting information of products and electronic data interchange (EDI) between organizations, are regarded as parts of e-commerce.

Broader definition was provided by UK government: e-business is the exchange of information across electronic networks, at any stage in the supply chain, whether within an organization, between business, between business and consumers, or between the public and private sector, whether paid or unpaid (Performance and Innovation Unit 1999, cited in Chaffey 2002). Nevertheless, one difference cannot be ignored, which is whether electronic information exchange within the organization is considered one part of e-commerce. The short answer from the perspective of this thesis is yes. The opinion of author is toward the broader definition, as the definition provided by European Commission: companies are increasingly using Information and Communication Technology (ICT) to link together their business processes and systems. Also includes hooking departments together to provide better products and more responsiveness. Therefore, the analysis of e-business in this thesis would base on this definition.

E-commerce, which is a part of e-business, refers to information exchange between an organization and its stakeholders. It involves sell-side activities and buy-side activities.



Sell-side e-commerce indicates transactions between an organization and its customers. (Chaffey 2002)

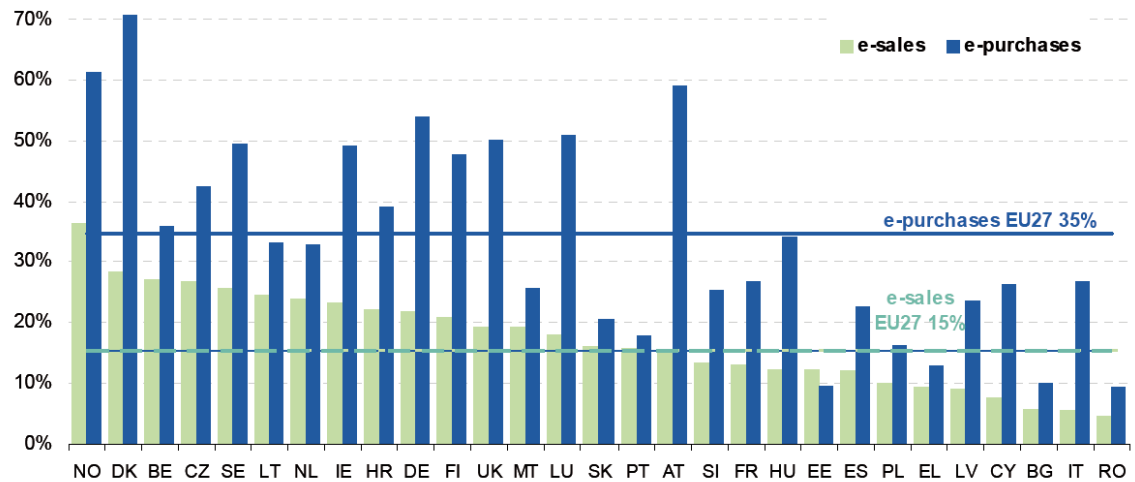
It is also necessary to provide other two definitions: e-business of upstream supply chain and downstream supply chain. The main reason is that after illustrating the impact of e-business on fashion supply chain, further analysis that focuses on e-business of downstream supply chain would be provided. It is also because of not all companies implement e-business solution equivalently on every parts of whole supply chain. E-business of upstream supply chain refers to the transactions between a company and its suppliers and intermediaries. Correspondingly, e-business of downstream supply chain refers to the transactions involving companies, customers and intermediaries. (Chaffey 2002)

### **2.1.2. Growth of E-business**

Understanding sell-side e-commerce size is essential for organizations to construct their e-business strategies. The global sell-side e-commerce market already reached 325.2 billion in 2008, and the growth rate was 13.6% compare to the year 2007 (Ehsan & Mahabubuzzaman 2011). According to Forrester forecast, from 2010 to 2013, the compound annual growth rate of sell-side e-commerce all over the world is 9%. The market will reach 500 billion dollars by 2013, up from 384 billion dollars in 2010. (Blume 2011)

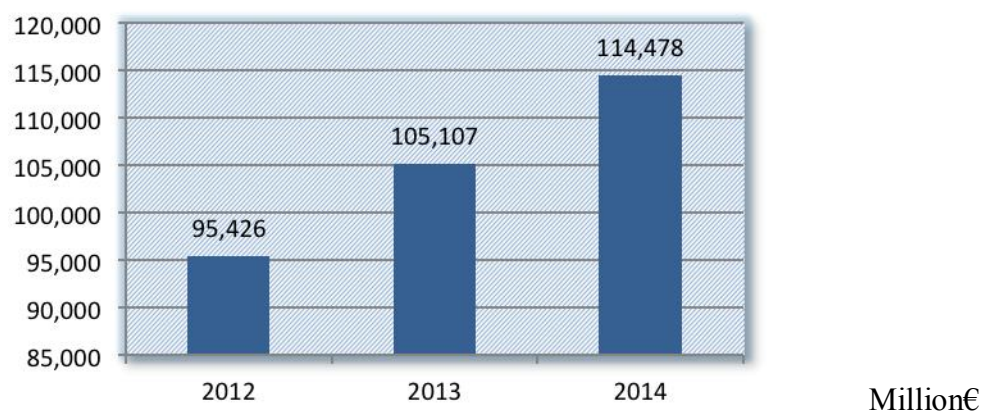
According to the statistics from Center for Retail Research, the total market was worth £145,600 million in 2010 and £102,900 million in 2008. The e-commerce share of turnover was also climbing year by year, from about 12% to 14%. As shown in Figure 1, 35% of enterprises in the EU27 made purchases electronically in 2010. During the same time, 15% enterprises made electronic sales. There was significant variation in e-purchases and e-commerce according to countries, ranging from 9% in Romania to 71% in Demark. (Giannakouris&Smihily 2012)

In addition, the percentage of enterprises making purchases electronically and sales electronically varies according to the size of the company. There were only 13% of small enterprises made e-sales in 2010, and e-sales comprise 4% of their turnover. Meanwhile, 37% of large enterprises engaged in e-sales and e-sales comprise 19% of their total turnover. Although all sizes of enterprises increased in the percentage of e-purchases and e-sales, the changes were less noticeable in small enterprises. (Giannakouris&Smihily 2012)



**Figure 1:** E-commerce sales and purchases, 2010 (% of enterprises) (Giannakouris & Smihily 2012)

Western European online shopping will continue to grow strongly, according to many research organizations. The report Western European Online Retail Forecast, 2009 to 2014 from Forrester reveals that the online sales in Western Europe will rise from €68 billion in 2009 to €114 billion in 2014-an 11% compound annual growth rate.



**Figure 2:** Forecast: EU-17 Online Retail Sales, 2012 To 2014 (Data from Forrester 2010)

## 2.2. E-business in Fashion Industry

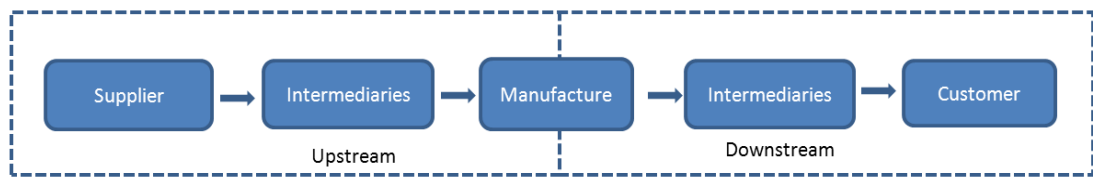
### 2.2.1. Fashion Supply Chain

Fashion industry has characteristics of short life cycles, high volatility, low predictability and high impulse purchasing (Christopher 2004). Moreover, the competition has become fiercer in Europe due to globalization. High efficiency and demand driven are two central topics of enterprises in fashion industry. For the first one, important re-

searches and reports indicated that supply chain management should play an important role because it could achieve quick response and reduce the lead time (Lo et al. 2008).

Understanding the characteristics of fashion supply chain is the first step for managing the supply chain. Fashion supply chain is both complex and highly fragmented, which involves all activities of an organization from raw material suppliers to its customers, as indicated in Figure 3, including different types of intermediaries such as retailers. In addition, with the globalization of fashion industry, activities and relationships between different roles in supply chain became more complicated because it sometimes evolves several countries. Therefore, sharing information and knowledge is important in fashion supply chain management.

Nowadays, traditional methodology is still the domain solution for enterprises when they face the problems related to supply chain, such as quick response (QR) systems (Lo et al. 2008). However, with the rapid growth of information technologies, many solutions have been used for improving the efficiency of fashion supply chain management.



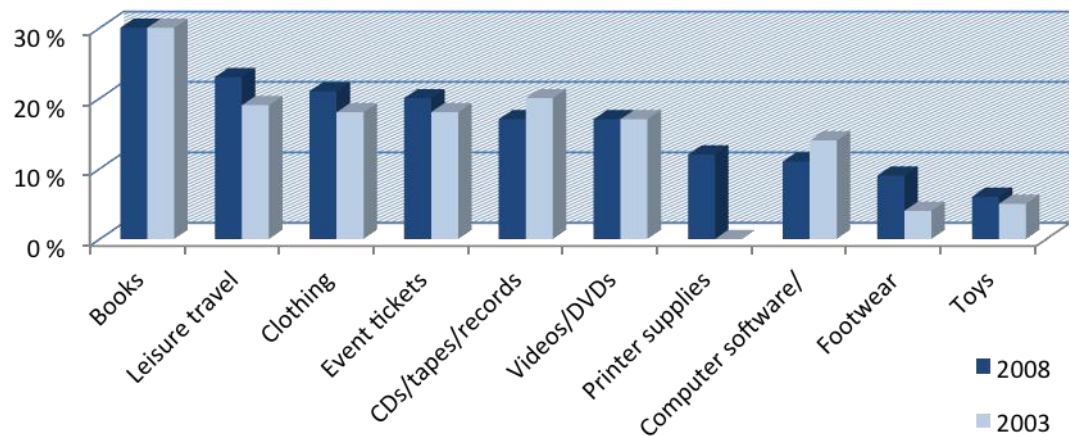
**Figure 3:** *Fashion supply chain*

EU textile and clothing industry is a small enterprise manufacturer (SEM) based industry. More than 90% enterprises had less than 50 employees, and about 75% of enterprises have less than 10 employees in 2001 (e-business Watch 2005). For these companies, it is really difficult and complex to implement broad scale systems. Furthermore, the cost for these systems is another reason for hindering the use. Even if some big companies achieve the implementation, not all companies involved in the whole supply chain are able to correspondently carry out suitable solutions for the same system.

It is difficult to implement systems that manage whole fashion supply chain, but it does not mean all e-commerce systems are hard to implement. Many companies use ICT solutions to approach the goal, such as Enterprise Resource Planning (ERP) system. Systems like Customer Relationship Management (CRM) system and order management system are used for managing certain part of supply chain. The following part is going to analyze current e-business solutions used by companies from perspectives of upstream supply chain and downstream supply chain and this can provide further insight in e-business trends and developments.

### 2.2.2. Growth of E-business in Fashion Industry

Fashion industry has traditionally been slow to adopt new business activities, and this may be the reason for the slowed down adoption of e-commerce (Masters 2000). Nevertheless, clothing was the fastest growing category of online sold products in UK and USA in 2008 (Ehsan & Mahabubuzzaman 2011). As indicated in Figure 4, clothing is one of the top categories purchased online in the majority of Western Europe. The statistics are based on the questionnaire answers from 4313 online shoppers in 2003 and 4910 online shoppers in 2008. Twenty one percent of the participants bought clothing online in the past three months when they answered the questionnaire in 2008, up from 18% in 2003. (Lewis 2009) What is more, clothing has become the No.1 online retail category in many countries, including France, US and China (Wei & Zhou 2011).



**Figure 4:** Different categories purchased online in Western Europe (Data from Lewis 2009)

According to the statistics, Europe was the second largest online fashion retailing market in 2009, with a share of 28.3%. The total revenue of Europe from online fashion retailing was 13.3 billion dollars. (Ehsan & Mahabubuzzaman 2011) During the same period, UK, the leading e-commerce market for fashion industry, reached £3.95 billion and it increased to £4.27 billion in 2010, with the growth of 8% compare to the year 2009. (Mintel 2010) The online fashion retailing in UK is expected to grow, as indicated in Table 1. Mintel also projected the compound annual growth rate of online fashion market will be 9.9% from 2010 to 2015 (Enright 2011).

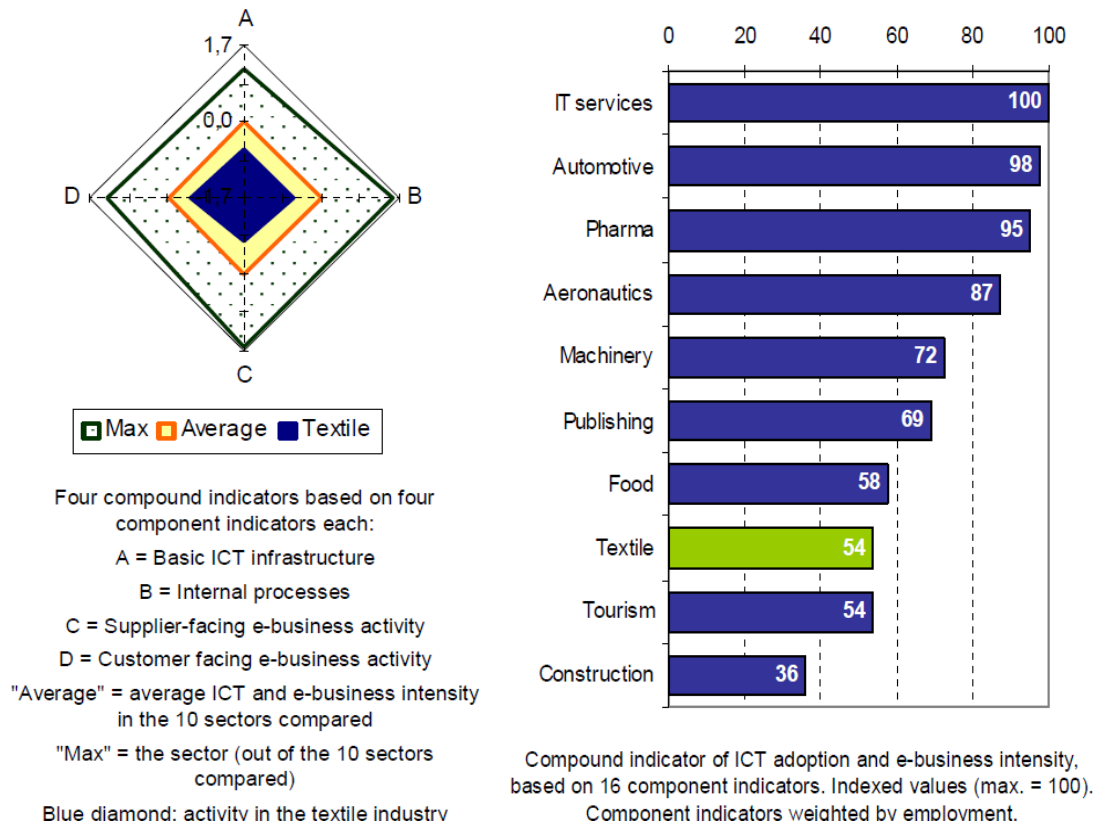
	Current Turnover (£m)	Year-on-year Growth
2011	5,309	17.8%
2012	6,154	15.9%
2013	6,844	11.2%

**Table 1:** Market forecast of online retail sales of clothing and footwear (Intel 2010).

### 2.2.3. ICT Adoption in Fashion Industry

Based on the statistics and analysis on e-commerce sales, it is undeniable that e-commerce will play an important role in the future in fashion industry. Enterprises in this industry also have recognized the potential benefits of e-commerce.

According to the e-business Watch report about EU textile and clothing industry in 2005, 58% of interviewees stated that e-business is important to the way the company operates. However, the report also showed ICT adoption of EU textile and clothing industry was below average among 10 different sectors, as reflected in Figure 5. The compound indicator is the result of four categories' indicators, which are divided by business functions: basic ICT infrastructure, internal process, supply-side activity and customer-side activity. The 16 indicators are enterprises connecting computers with a Local Area Network (LAN), internet connectivity index, remote access to the company network, Virtual Private Network (VPN) access to the company network, use of an intranet, use of online technology to track working hours/production time, use of Electronic Document Management (EDM) systems, use of ERP systems, enterprises purchasing at least 5% of their supplies online, use of specific ICT systems of e-procurement processes, use of Supply Chain Management (SCM) systems, use of online technology for inventory management, enterprises maintaining a website with a content management system, use of CRM system, enterprises selling at least 5% of their goods and services online, and use of specific ICT systems to support marketing and sales. (e-business Watch 2005) In fact, the compound indicator was lower than 54 because statistics used for Figure 4 were from 561 companies that used computers. There were 26% companies were not using computers in 2003, mainly small craft companies with few employees (e-business Watch 2003).



**Figure 5.** *E-Business Scoreboard 2005-ICT and e-business intensity in the textile industry compare to other sectors (e-business Watch 2005).*

The usage of basic ICT infrastructure in textile and clothing industry is lower than the average usage for 10 sectors, lying between manufacturing sectors with more advanced ICT use and service sectors such as tourism. However, 98% of employees have access to Internet and this number even slightly higher than weighted average for 10 sectors. The availability of remote access to the company's network is in line with the weighted average for 10 sectors, which play an important role for company's integration of externalizes production and on average, companies in textile and clothing industry invested 12,300 euros for ICT infrastructure and software in 2004.

There was a clear dichotomy in textile and clothing industry: large companies are fairly equipped by basic ICT infrastructure, while small companies lag behind. For instance, 9% of small and micro companies have no Internet access, while nearly all medium and large size companies have Internet access and remote access was available in 9% of micro companies and 76% in large size companies. (E-business Watch 2005) This phenomenon not only appears in the aspect of usage of basic ICT infrastructure, but also other aspects such as e-business system adoption.

ERP is a management concept as well as a management system (Xu 2006). The adoption level of ERP increases with the size of company. Fifty six percent of firms with more than 250 employees had adopted ERP system, while 17% of firms with less than

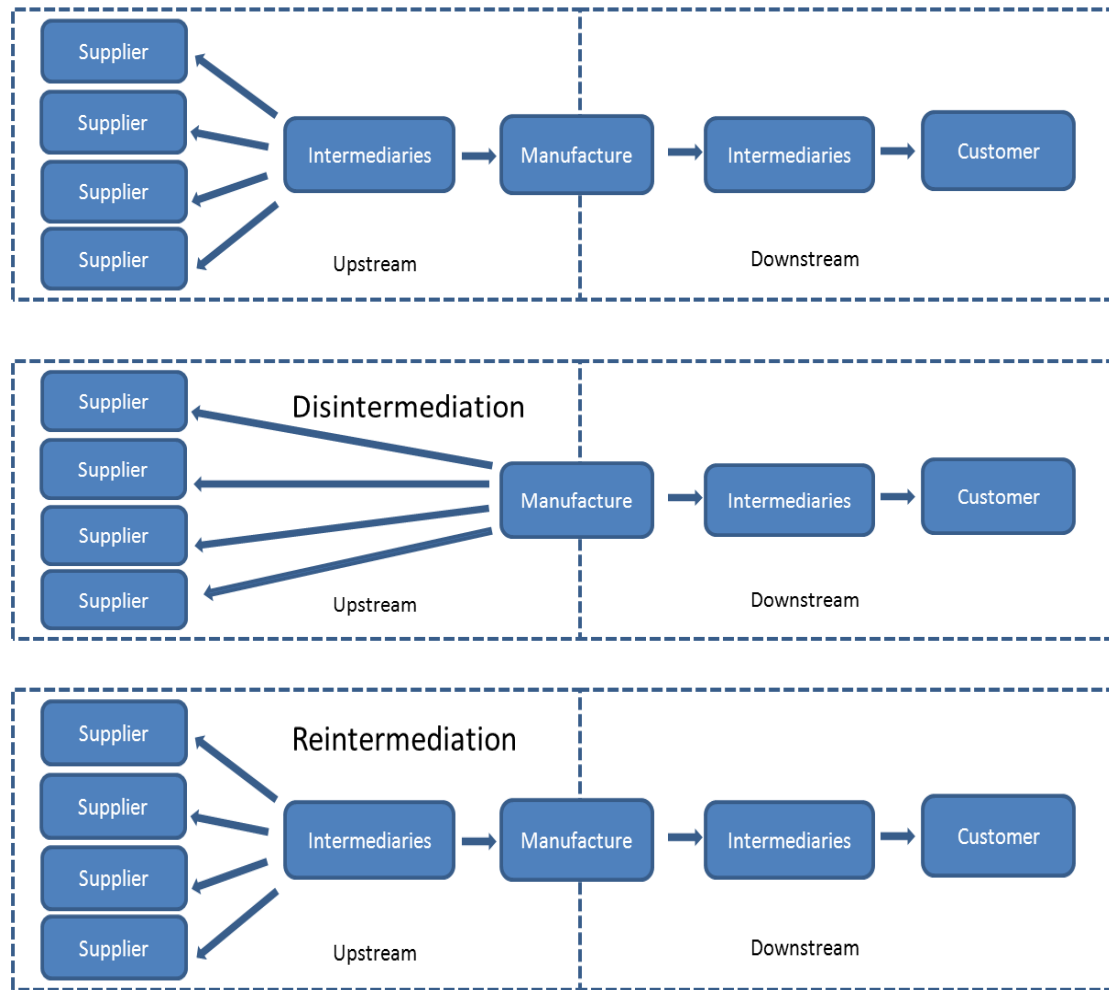
50 employees rely on such system (e-business Watch 2005). There have been many other information technology solutions proposed to the supply chain as well. For example, Product Data Management (PDM) system and Product Lifecycle Management (PLM) as products management tools, are suitable for describe the products; Computer Aided Design (CAD) as a design tool, has functions such as 2D pattern making, grading and drawing and 3D modeling (Lo et al. 2008).

### **2.3. E-business in Upstream Supply Chain**

The percentage of online procurement more or less mirrors the e-commerce level in textile and clothing industry. In the survey mentioned before, 51% of employees have online purchases, but the share of online purchase on total purchase is less than 5% in 78% of employees in 2005. Only 3% employees during that year buy more than 25% of their supplies and just only 14% use specific ICT solutions for procurement. These statistics illustrate the fact that the adoption level of e-commerce is relatively low in upstream supply chain. The essential reason for low level of adoption in upstream supply chain is no commonly agreed standard for product quality. (E-business Watch 2005)

Still, some companies use ICT solutions for procurement and achieve significant economic advantage. In the same survey, 60% companies that used ICT solution for procurement chose standard software packages and 45% use customized, company-specific information technology (IT) solution; 35% use software services provided by Application Service Provider (ASP). Rifil SA is a good example to illustrate companies that uses company-specific solution to save time and reduce the errors. As a supplier of yarn, small manufacturing companies represent the core of customer database. How to improve and shorten the order for production to meet the customers' requirements is a task for Rifil because these customers rely on limited ICT capability. The company has implemented a low-cost order system, which is easy, simple and requires minimum equipment on the customer side, to achieve the goal. At the same time, the system was integrated with its internal production system. This system managed 30% of Rifil total orders and the company planned to push it among the whole customer database. (E-business Watch 2005) The case demonstrates that if companies clearly define their own and customers' requirements before implementing systems, they can gain efficiency and save cost by using appropriate systems that even involves small business partners.

In the previous example, e-commerce changes the way of interaction between companies and suppliers. However, the impact of Internet is far beyond that. It changes the structure of upstream supply chain, as depicted in Figure 6.



**Figure 6:** Disintermediation and Reintermediation process

Intermediaries played an essential role in the disintermediation and reintermediation process. Disintermediation refers to removal of intermediaries such as brokers and distributors that formerly linked a company to its suppliers. In another word, Internet offers a shortcut between companies and suppliers, thus cutting out the middleman in the supply chain. However, this makes inefficient to the customer because they need to make evaluations for each supplier before making decisions. To eliminate the inefficient, reintermediation provided intermediaries between customer and company. (Chaffey 2002) And these intermediaries adopt different business models such as vertical portals. Vertical portals are Web sites that offer specialized services and information to specific industry or market. They provide supply chain members with industry news, analytical reports, and import and export regulations, information about raw materials and so on. This is the business model applied by intermediaries at the beginning stage. Soon after this start up stage, intermediaries have adopted e-hubs, which host B2B marketplaces that enable trading between buyers and sellers. Vertical e-hubs provide domain online trading services and contents. This kind of transaction can reduce the transaction cost



for companies and suppliers. And exchanges undertaken in e-marketplaces are more efficient and effective than those in traditional offline market. However, it is hard for e-hubs to differentiate themselves from other online trading services because they focus on price competition in the struggle for surviving. Therefore, they can collaborate with leading buyers and sellers, or integrate multiple steps of the value chain by providing both online and offline services including logistics, insurance, quality assessment for textile and clothing sourcing. (Ho et al. 2003) This transformation indicates using appropriate strategy to harness technological innovations is important to achieve competitive advantage.

## **2.4. E-business in Downstream Supply Chain**

### **2.4.1. Adoption Level of e-business in Downstream Supply Chain**

Moving towards web-based sales activities has not really taken place. The percentage of companies selling online is quite low according to the e-Business Watch Survey 2005, thus the online sale percentage is relatively low. There are 14% of all companies make some online sales, 4% companies sell more than 5% of goods online. 14% companies use specific ICT solutions for online marketing/sales. (E-business Watch 2005) When analyzing the low percentage of online sales, one factor needs to be considered. There is business that performs part of productivities, such as buying finished products through distribution channels. This kind of business acquires large share of business in textile and clothing sector, but are still carried out in a traditional way.

Therefore, the percentage of online retail sales of apparel was higher than the statistics stated above. In 2003, online retail sales in US reached 20.2 billion, which accounts 7% of total apparel sales, according to Forrester Research (Tuunainen & Rossi 2002). With about 10% growth rate, it is undeniable that online retail sales already reached a considerable proportion (Mulpuru 2011).

### **2.4.2. E-business Marketplace**

E-business marketplace refers to virtual locations with facilities to enable trading between sellers and buyers (Chaffey 2002). Market position is an important perspective when analyzing business models. However, before analyzing the virtual locations, it is necessary to clarify the participants evolved in different types of transactions as well as changes of channel structure. There are four types of transactions with different characteristics: Business-to-Business (B2B), Business to Customer (B2C), Customer to Business (C2B), and Customer-to-Customer (C2C). B2C trading is relatively simple compare with B2B trading, both from complexity of buying decisions and channel perspective. C2B and C2C are considered less widely used. Changes of structure in downstream supply chain are similar with that of upstream supply chain analyzed before. Phenomena of disintermediation and reintermediation happened because of the Internet. These

elements are heavily influenced by electronic communication and need to be considered when analyzing e-business marketplace.

There are many virtual locations where an organization wants to create communication and sell its products to customers. Berryman classifies them:

- Seller controlled: Home site of company; vendor sites; intermediaries controlled by sellers
- Buyer controlled: intermediaries controlled by buyers
- Neutral: industry; product-specific search engines; information marts; business malls; auction space

In this thesis, more analysis is focus on seller controlled and neutral marketplaces.

#### **2.4.3. E-business Model**

It is important for organizations to understand different types of e-business models before choosing the right one to gain competitive advantages. The definition of e-business model is: architecture for product, service and information flows, including a description of the various business actors and their roles; and a description of the potential benefits for the various business actors; and a description of the sources of revenue (Timmers 1999).

There are 11 different e-business models listed in by Timmers, and the following discussion is focus on models in downstream supply chain.

- E-shop

According to Timmers, e-shop has the function of web marketing. Companies that adopt this model will have many benefits, including reducing the cost of promotion and advertising, entering global market easily, and increasing the demand. The revenue is generated by the increase sales, advertising and reduced cost. Most websites are business-to-customer electronic shops, for example: <http://www.adidas.fi/>

- E-procurement

E-procurement refers to the tendering and procurement of goods and service on the Internet. For example:

<http://www.intaa.cn/english/index.asp?sortid=1&text=Apparel%20Fashion>.

Companies will have wider choice of suppliers. They can make the decisions by comparing price, quality, delivery time, etc. The income of this business model is the reduction of cost.

- E-mall
 

An e-mall consists of a collection of e-shops. These e-shops are grouped together under a well-known brand, and have a common payment method. The revenue is not coming from the interest in an individual business that is being hosted. It is coming from advertising space or collective benefits such as increased traffic. An example is <http://www.emb.ch/index.shtml>.
- E-auction
 

E-auction is the electronic version of bidding, but also integrates many other functions such as paying and delivering. An example is <http://www.ebay.com/>. The sources of income for the auction provider are advertising, transaction fees and technology platform. This kind of business model reduces the negotiation time and cost for buyers and sellers.
- Third-party marketplace
 

This business model is suitable for companies that want to leave the entire web marketing to a third party. The brand of website is managed by the provider, who is also offering other services such as ordering, payment and logistics. Revenue generates through membership fee, service fee, transaction fee, or percentage on transaction value. For example: <http://www.textile-apparel.com/index.asp>
- Virtual business community
 

It is the place on web that customers or partners can add their information. It has been always considered as an additional function to other business models. The revenue comes from advertisement and membership fee. This is an example of Burberry community: <http://artofthetrench.com/#>
- Value chain service provider
 

As the name shows, this kind of provider offers specific function of the value chain. Companies could gain competitive advantages from these providers. Bank and logistics companies can be good example: <http://www.ups.com/>
- Value chain integrator
 

These focus on integrating of value chain. By analyzing the information flow in value chain, offer added value to customers.
- Collaboration platforms
 

These platforms offer tools and information environment to a group of companies that want to collaborate together. Those enhance the effectiveness of the collaboration and fulfil the needs of companies.
- Information brokerage
 

Providers offer a big amount of data on the Internet, such as search engine: [www.google.com](http://www.google.com). They also provide specific information according to the needs of companies and certain level of consulting service. The

revenue is generated from subscription fee, advertising or payment from companies that are using services.

- Trust and other services  
The operators provide trust services such as certification authorities. They guarantee the quality of trading on the Internet and also gain benefits from charging from customers. One example is: <http://www.truste.com/>.

Timmers also classified his 11 e-business models with two characteristics. As shown in Figure 7, the characteristic along x-axis is degree of innovation. With higher degree of innovation, the way of doing business is more innovative compared to the traditional way. For instance, the business model of information brokerage is in the higher degree of innovation position, which means the function of information integration is relatively a new way of doing business. This enhances the capability of the company. The other characteristic is functional integration. The lower degree of functional integration is, the fewer functions that business model has. For example, e-shop, which only has marketing function over the Internet, is in the position of lower degree of functional integration.

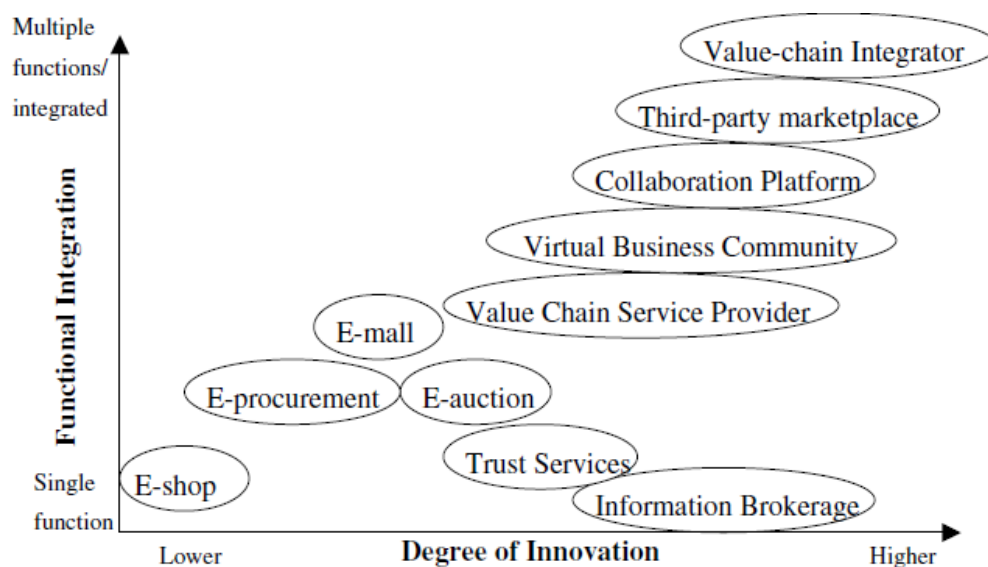


Figure 7: Classification of Internet business models (Timmers 1998)

Researchers provided different classifications. Based on the degree of value integration and control, Ticoll illustrated four types of e-business models. Kaplan and Sawhney also classify the business-to-business models into four categories. All of these classifications help to understanding e-business models and even the developing trend of e-business models. Timmers indicated the business models were gradually moving toward to increased integration. Therefore, companies can select different business models by comparing same characteristics between business model and itself, meanwhile considering the developing trend of business models.

#### **2.4.4. Multi-channel Strategy**

Today, fashion retail businesses face a significant challenge: surviving in a business model that includes the Internet. They are turning to multi-channel strategies, which link brick and mortar, e-commerce, catalogs, and call centers together. (Schoenbachler & Gordan)

What is the reason for retail business to adopt multi-channel strategy? According to Schoenbachler & Gordan, traditional retail businesses accept the new model because of the pressure of competitors, especially young, smart entrepreneurs (Schoenbachler & Gordan). This is definitely one of the important reasons for fashion organizations moving into a multi-channel strategy. However, if companies do not understand the principles for getting benefits from multi-channel strategy, it is hard for them to manage the operations like forecasting sales, setting prices and making decisions of promotion. The essential reason is that e-commerce website will complement catalog mailing, as well as brick and mortar store. Furthermore, this new channel will create more benefits than just simply add its benefit to the sum of existing channels. (Avery et al. 2009)

There is no denying that companies need to consider cannibalization when adopting multi-channel strategy. Cannibalization refers to the phenomenon that sales shift from exist channels to new channels. Moreover, it is believed that cannibalization is more likely to happen when channels target same customers, or provide similar service and products. However, this is just partly true in short time after adding a new sales channel such as e-commerce website because customers may try new channels to figure out whether they suit their needs. With the time pass by, new channels will boost sales in all channels. (Avery et al. 2009)

How e-commerce website brings benefits to all channels over the time? First, even in the same target group of a company, consumers would have different purchase preferences. Some of them choosing retail stores because they want to have the products right away or they enjoy the shopping experiences. Some housebound consumers prefer to order from online. Therefore, adding an online channel will complement existing channels because it reaches new customers whose needs were previously not served. Second, a customer will have different purchase occasions. The customer may want some kind of products from online channel, and others from a bricks and mortar store. Two channels will complement each other and finally increase the total sales from this customer. This will create more contact points between existing customers and companies, which has been proven to increase the satisfaction and loyalty. Third, online channel acts as an advertisement for the company's brand. This would create brand awareness online, thus brings new online customers and reminds exist customers to purchase via channels such as bricks and mortar stores. (Avery et al. 2009) Multi-channel players with online channel just spend 13 percent of revenues on marketing and advertisement, where one-

channel players such as online only retailers spend 76 percent of the revenues (Schoenbachler & Gordan 2002). What is more, customers can associate valuable attributes of different channels. For example, customers comprehend a retailer with an online presence offers lower price. Furthermore, an online website with retail stores is more trustworthy than those sites that just sell via Internet. (Avery et al. 2009) It attracts twice the customers' click rate as web only retailers (Schoenbachler & Gordan 2002).

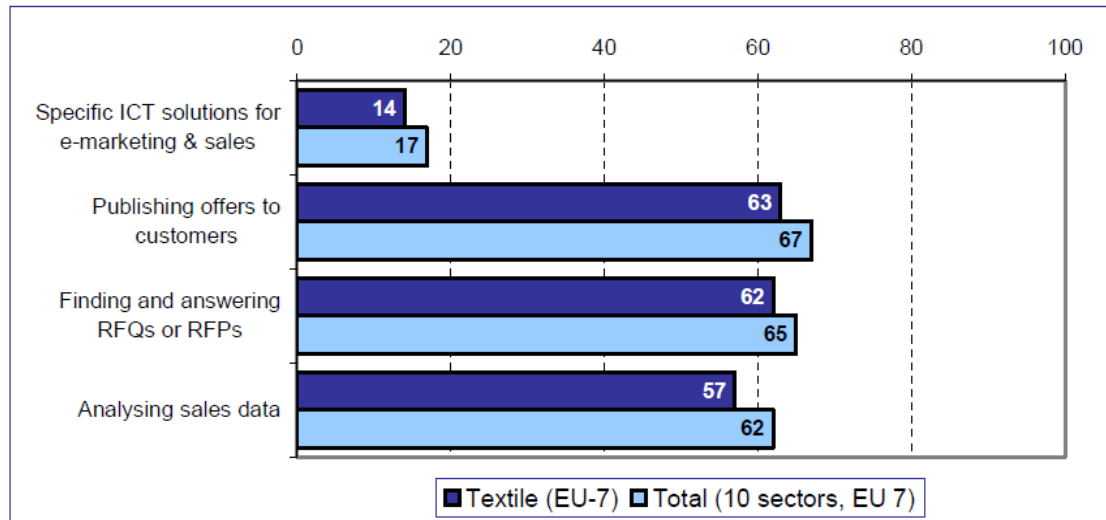
After the illustration, adopting multi-channel strategy is a growing trend in fashion retail business. However, compared with brick and mortar store, online store has many limitations, especially related to service. According to Hudgins, it is necessary to launch an e-commerce store has the same care to the detail as the bricks and mortar. Customers will not come to a store where it will take them a long time to see the shelves, cashiers do not work or clerks cannot offer any help. Fortunately, with the development of technologies, online channel are changing continuously to meet the needs from customers. Virtual try-on technologies, which will be analyzed in the following chapter, help customers to create realistic simulations. Recommendation system, acts like an adviser, is used to help customers to choose suitable clothes according to their taste. The system analyzes customers' preferences by Analytic Hierarchy Process (AHP) techniques, arranges the correlation of clothes, and provides recommendations. Its aim is at providing same service level that salespersons offer to customers. (Sekozawa et al. 2011) With the emergence of other technologies, such as virtual touch, 3D whole body capturing and digital fabric printing, online stores are going to provide services that brick and mortar stores offer, meanwhile, fulfill the personal requirements of customers.

#### **2.4.5. E-business Solutions in Downstream Supply Chain**

In the downstream supply chain, e-commerce solutions for billing and invoicing are mainly used solutions by companies in fashion industry. According to e-Business Watch Survey 2005, 46% of computer using companies applied billing and invoicing solutions, while 14% used specific solutions for online marketing or online sales. In addition, the usage of CRM was limited, being adopted by 16% companies who were using computers. Even among the large companies, less than one third of companies used CRM applications. This is mainly because of the difficulties in analyzing and collecting the data from final customers. However, CRM applications would be useful in the whole process: from product development to after-sale service. In the same report, 87% companies in fashion industry were aware of the importance of CRM applications and they were starting to use this for marketing and other services. (E-business Watch 2005)

Poorly diffused e-commerce solutions for e marketing and sales was proved by the fact that only 20% large companies had adopted such kind of solutions. While most of them just have websites, few websites are used for selling products or showing catalogues, establishing customer communities or influencing customers' choices. As depicted in

figure 8, among these companies that use specific solutions for e-marketing and sales, 63% just use them for publishing offers to customers, and 57% use them for analyzing sales data. Thus, the interactive activities between customers and companies are limited. (E-business Watch 2005)



Base (100%): Firms that support marketing or sales processes by specific ICT solutions.

N = 53 (Textile, EU-7), N = 801 (Total, EU-7). Figures are weighted by employment.

Percentages for the textile industry only indicative, due to small number of observations.

RfQ = Request for Quotation; RfP = Request for Proposal

*Figure 8: Specific ICT solutions for e-marketing & sales, out of which usage of single application (e-business Watch 2005)*

Several ways can be taken into consideration if companies want to adopt e-business solution for marketing and sales: standard software package; customized solutions; software services provided by ASPs; services offered via procurement solutions of buyers and services offered on e-marketplaces or trading networks. Among these alternatives, companies to support sales and marketing operations always use first two types. (E-business Watch 2005)

About marketing and sales, it is obvious that third party—software vendors and service providers—played an important role. Software vendors can create e-commerce system and standard software products for companies. On the other hand, service providers adopt ASP model, which simplifies installation and operation for SMEs. (eBIZ-TCF 2008) An ASP company would license the application to multiple customers. Sometimes they would customize versions of the application and provide to customers. In e-business Watch report, 25% of companies that support marketing and selling process with e-commerce solution use ASP services. The concept of this kind of service is a big leap compare with buying standard software packages and customized solutions.

Even ASP model has become popular in the late 90s, ASPs soon realized the cost of customizing and maintaining modified versions was much more than they had anticipated. On the other hand, customers found out the charge fee for customization from ASPs were very high. (Luit Infotech 2013) Therefore, the new model of Software-as-a-Service (SaaS) was adopted by the providers. SaaS refers to an application that is delivered as a service to multiple customers simultaneously. Customers can order different features they need without technical and licensing barriers. This kind of customization does not require much investment because software is hosted remotely by providers, which means customers do not need hardware. Thus, the use of SaaS is growing rapidly. According to the statistics from Computerworld survey, 64% respondents admitted they were using SaaS. What is more, sales incentive management application is one of the most used applications. (Mark 2009) Among the companies who are using this kind of service, small businesses benefit the most. Because many disadvantages, including lack of IT knowledge and support infrastructure; lack of the ability to absorb the cost of buying and implement new software are eliminated by SaaS approach. (Dubon 2007)



### 3. TECHNOLOGIES IN FASHION E-BUSINESS

#### 3.1. Platform

E-business platform provides many functions to setup the web stores, which match the companies' needs. E-business platform should be integrated with ERP, CRM and other applications that companies use at the same time to ensure the effective fulfillment. (GX software 2011) In general, e-business platform, as a business tool, helps companies to merchandise, accept customers' order, manage online order, and manage customer relationship.

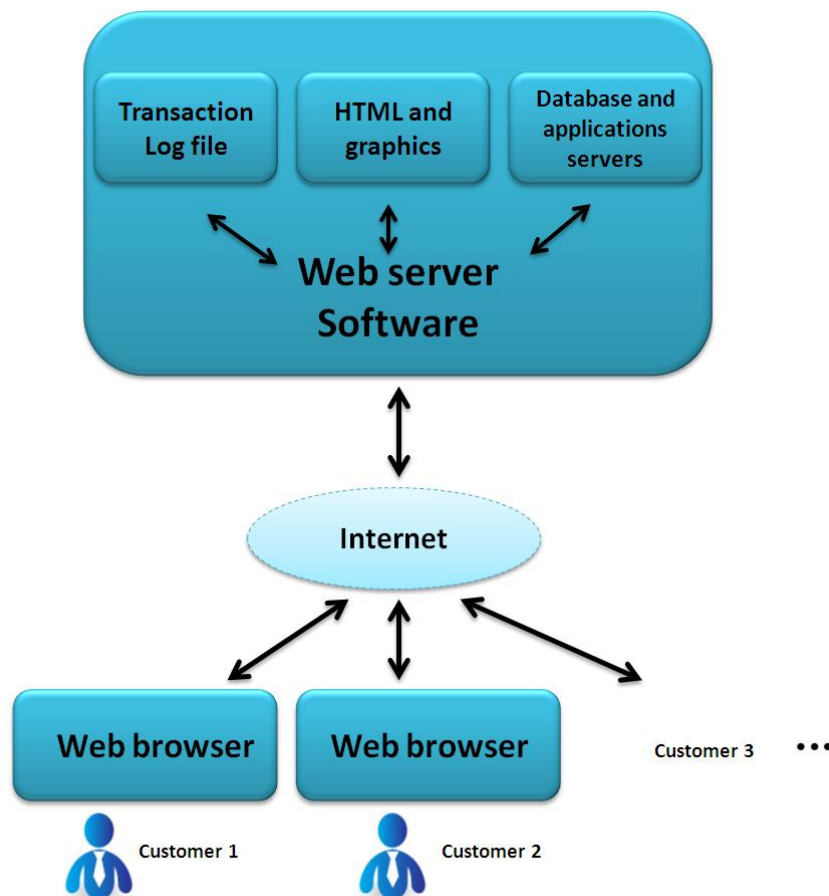


Figure 9: E-business platform

How does a platform work? Figure 9 illustrates the process of information exchange. Firstly, a customer will send a request that can be web address, clicks on a hyperlink or fill in an online form such as a search across the Internet to the destination server. Then,

the server will send requested page back if it is a fixed page. If the requested page needs information in database, the server will pass the request to database and applications server and then return the dynamically created web page to the customer. Meanwhile, transaction log file will record information about requests. (Chaffey 2002)

Platforms can be managed by company or outsourced by a third party. Nowadays, most companies choose to outsource at least part of e-commerce technologies and investment of e-commerce technologies is increasing all the time. According to the report of Forrester in 2012, 56% of companies plan to increase spending by 5% or more. The increased investment is primarily driven by the growth of online channel that discussed in chapter 2. Meanwhile, the requirements of companies are also changing. The solutions to launch a site can no longer fulfill them. They are looking for technologies that can manage products, orders, and customer data. At the same time, they need solutions that are open and flexible to different device sites such as mobile sites, call center interfaces, etc. (Walker 2012) Because of these two factors, the market has been changed dramatically. There have been many mergers and acquisitions in the e-commerce solutions market. The market is developing and in an unstable stage.

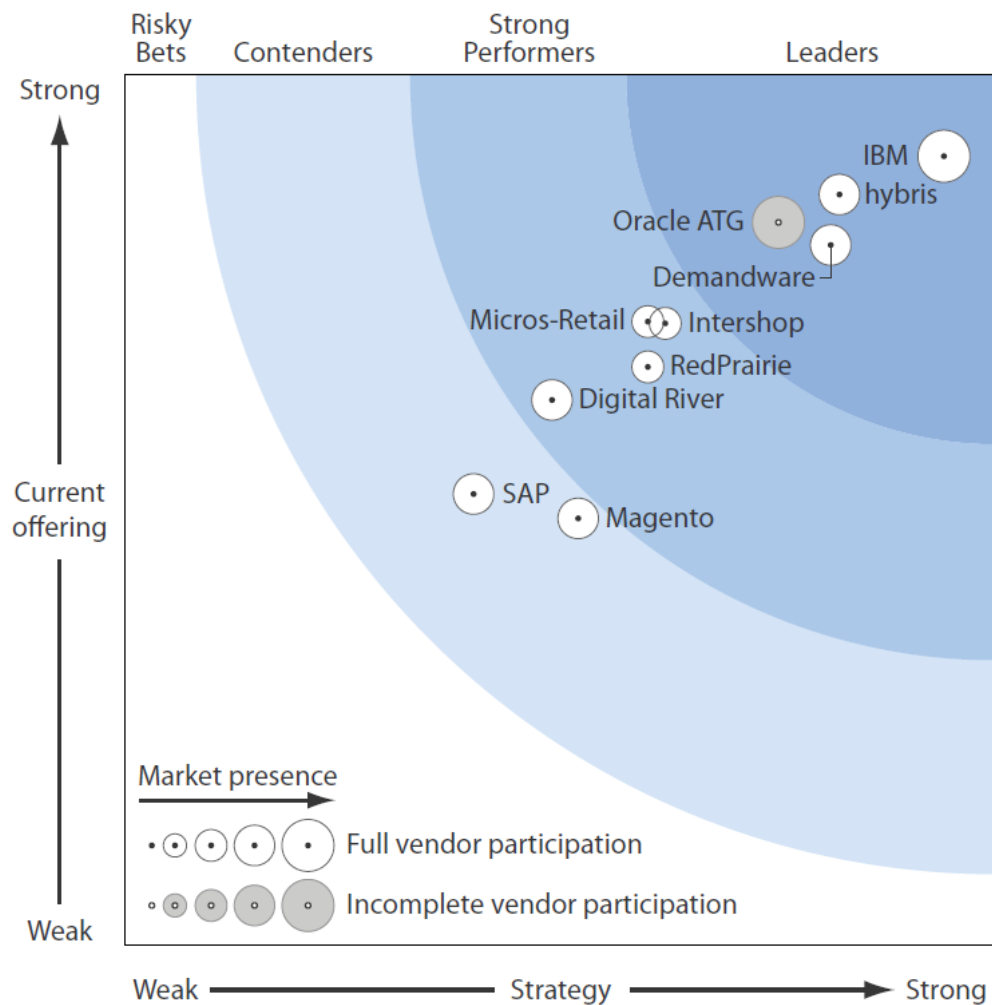


Figure 10: B2C ecommerce platform vendors (Walker 2012)

Forrester analyzed 10 vendors that significantly focus on B2C commerce solutions, have stable business revenues and ability to support clients with sales of more than 100 million dollars. These 10 vendors are evaluated by three groups of criteria: current offering, strategy and market presence. As shown in Figure 10, IBM, hybris, Oracle and Demandware lead the market. Demandware offers the SaaS solutions while the other three deliver products under licensed model. (Walker 2012)

E-commerce platforms are very popular among companies in fashion industry. For instance, Magento provides services to Paul Smith, The North Face, Nike, etc. Hybris has Adidas and Reebok as clients. However, what technologies and services can be provided by these vendors? Demandware e-commerce platform, which is a market leader and has many customers in fashion industry, including Hugo Boss, Columbia Sportswear, Lacoste, Puma, Tommy Hilfiger, Gucci, etc, can be a good example for illustrating. (Demandware 2011)

Demandware has been developed very fast compared to other vendors in the past few years, because of the significant improvement of site and content management tools (Walker 2012). As shown in figure 11, demandware e-commerce platform covers many functions. In the first category of customer experience applications, the platform includes storefront applications, call center application for agents to quickly access all order information, customer information, production information and more through one web-based interface. In addition, it also has mobile applications, which can be used to create mobile storefront.

In the second category of merchandising tools, applications are enable retailers to deliver tailored user experiences. Retailers can manage products and catalogs, pricing, customers and more through a web-based interface. Among these merchandising tools, comparing with other e-commerce solution vendors such as IBM in the market, Demandware just has the improved order management and customer call center solutions.

In the third category, it provides a development environment for retailers to authoring, modifying, compiling, deploying and debugging applications. It includes a library and necessary tools to edit applications. In the last category, the applications create a high performance shopping environment for customers by solving problems of web traffic, disaster recovery and so on. (Demandware 2011)



Figure 11: Demandware ecommerce platform (Demandware 2011)

### 3.1.1. How to Choose a Suitable Platform

Because technology is one of essential tools to keep companies in a competitive position, companies have to stay in the forefront by changing the platform technology solutions. More than half of the companies in the Forrester report planned to replatform in the next two years.

When choosing a suitable platform, the first factor is internal considerations. The companies need to analyze what skills and resources they have. According to this, they can choose different delivery options. For instance, if one company has limited IT capability, SaaS can be an option. On the other hand, companies also need to consider about the flaws of different delivery models. Take SaaS model as an example, companies need to accept the fact that many companies including competitors are using the same database if they choose this delivery model. Then security might be a potential problem and companies need to accept that they never really own the site and have to subscribe the service from providers.

Second factor is vendor considerations. Technology is one important aspect: management and merchandising tools, integration with existing systems in companies, reporting and analytics and so on. Vendors have their own advantages about technologies.

Companies can choose according to their own needs. Another one is the quality of vendors. Companies can judge this by the reputation of the vendor, such as the feedbacks from their customers. Furthermore, the services provided by them can identify their quality: training and support for the products, the attitude to understand and fulfill companies' requirements, and financial situation of vendors.

In addition, the characteristics of products also need to be taken into consideration. As every company in fashion industry knows, selling clothing is different from selling books, tickets and other standard products. If vendors are specializing in fashion retailers, they are more likely to have the technologies suitable for fashion products. These features related to fashion products are needed to be concerned when choosing vendors:

1. An interactive look book or catalogue: displaying high quality product image that enable to link back to the catalogue.
2. Buy the look: allowing customer book one entire outfit to their chart in a single click.
3. Wish list with automated prompts: this enables the website to track customers' favorite garments and send emails to them if the statuses of the products have been changed, such as low in stock.
4. Dispatch: because dispatch is an important part after purchasing, so the website should have dispatch system that provides information about expected time of arrival and tracking numbers.
5. Color mapping: because many fashion retailers use coded colors for stocking, so these codes should be "translate" into actual color names. The website needs to have the interface for mapping these.
6. Image color display: when a customer selects a color, the image of the product should change correspondly.
7. The integration of Application Programming Interface (API): integrating the website within house system is very important. It ensures the products, stock and other information to be updated on the website. Thus, customers can enter into the existing accounts to check transaction history, to check the availability items, and to spend loyalty credit online. At the same time, in house system also gets the orders and customer data. (James 2012)

### **3.2. Technology Modules in E-business**

Online retailing of fashion products is driven by emerging and converging technologies. Technologies are the bridges between retailers or manufacturers and customers. The technologies that mentioned in e-commerce platform are just part of them. There are numerous technologies nowadays, and table 2 provides general technologies related to online retailing.

<b>Finding assistance</b>	Search and selection	
	Recommendation technology	
<b>Environment tools</b>	Music and video technology	
	Advertisement technology	
<b>Product specification</b>	2D technology	2D F-B view
		2D large view
	3D technology	3D rotation view
		3D large view
	Zoom technology	
	Size Information	
	Garment combination	
	Virtual mannequin	
	Virtual runway	
<b>Interactive tools</b>	Mix & Match	
	Product/retailer live chat	
	Fit/size chat and advice	
	Body measurement technology	
	Virtual fitting room	

*Table 2. Technologies for online retailing*

Search and selection technologies are basic technologies for online retailing. Search engines are available in the majority web sites in order to help customers to avoid browsing and go to the products they want. The statistics from the survey, which includes 100 websites in America and Korean, illustrate this: 81% of the websites have the search engine. Categorization is another search and selection technology. It is always presented on the home page and influences consumers' product search path. Target segments always organize the categories by men, women, and children. And then broad merchandise categories such as tops, bottoms and accessories. (Ha et al. 2007)

Another finding assistance technology is recommendation system. This technology aims at providing personal services to the customers based on the customer preferences. The clothes that are suitable to the customers' tastes are chosen and proposed by prioritized clusters, and other recommendations are given on the basis of the high purchase rate from other customers with similar preferences. (Sekozawa et al. 2011)



Environment tools help to create the atmosphere that may not be related to the products, but influences the shopping experience of customers. Images, music and videos that designed well will create a good impression of the brand or the retailer. But the technologies still need to be managed carefully because more images, music and videos will increase the loading time that decrees customer satisfaction and negatively affects attitude. Advertisement technology is another important element for creating shopping environment. And the main purpose of this technology is selling and promotion. There are pop-up advertisements, click-on advertisements, automatically moving advertisements, non-clickable image advertisements and simple click-on menu. Click-on advertisements, which are static image advertisements linked to sale pages, as well as simple click-on menu, which uses regular text menus to link to sale pages, are common ways used for sale and promotion. (Ha et al. 2007)

Providing accurate and sufficient product information is vital for customers to make purchase decisions. Among the online customers, 78% of them abandon their shopping carts (Goldwyn 2003, cited in Chau et al. 2006). And 81% customers just use Internet to search the products instead of purchasing, according to the research of Yankee Group (Mahoney 2001). The reason is they cannot judge the quality of products by the information provided on the Internet. Therefore, online retailers are trying to adopt the latest product visualization software, which can offer customers to have better understanding of the products.



*Figure 12: 2D technology for product description (Taobao.com 2013)*

2D technology, as shown in figure 12, is one of the sensory enabling technologies currently available at online shopping sites. This kind of technology is perceived useful and easy to use by customers (Fiore & Jin 2003). It presents more details, such as inside of the clothing. However, 2D technology has poor performance of bring entertainment to customers, which limits the usage by online retailers.



*Figure 13. 3D technology for product description (Taobao.com 2013)*

3D view provides the best information of clothing according to the interviews from the research about 2D view, 3D view and virtual try-on. At the same time, it is easy to use as well as have entertainment function. Customers with high level of technology anxiety would like to use 3D technologies such as 3D rotation view instead of virtual try-on. (Fiore & Jin 2003) Therefore, 3D view is one of the main technologies used by online retailers now.

Interactive tools are essential for online shopping because the experience provided by these technologies result in stronger purchase intentions than passive product presentations.

Mix and match, as a matter of fact, is a technology lying between product specification and interactive tools in table 2. If it is presented as suggestions from sellers, it is more like traditional bricks and mortar stores offering coordinated products and representing the brand image. If it is presented as image interactivity, it provides more information about the products as well as entertainment. Researchers support that mix-and-match function has positive influence on increasing responses from customers. These responses include willingness to return to the online store, likelihood of visiting online retailer's bricks and mortar store, likelihood of spending more time in online store, willingness to purchase and so on (Fiore & Jin 2003). Therefore, this function needs to be considered when describing the product.

Concerning the attributes of apparel products, fitting is regarded as a more serious drawback than silhouette, color and texture in online shopping. Since color and silhouette can be presented online easily, consumers can get the information by checking the pictures and so on. On the other hand, texture and fitting are hard to be presented because the information about these two attributes needed to be converted into visualized information. (Shim & Lee 2011) Therefore, online retailers use different technologies to



provide more information about fitting and texture to reduce perceive risk of purchasing, such as size chat and advice.

Among these technologies, the 3D virtual fitting is regarded as the major technologies to improve product presentation. According to the research of Shim and Lee, the 3D virtual fitting technology reduces more perceived risk about the product attributes than 2D images. The fit information of product is converted into visualized information on the customer's virtual model. In addition, 3D virtual models have higher level of consumers' perceived risk reduction than culture-ideal 3D virtual models about fitting (Shim & Lee 2011). Applications of virtual try on for online shopping websites have helped to increase 16 percent of online sales (Kim & Forsythe 2009). Therefore, in another word, if retailers use virtual fitting technologies, the online sales would increase more. Meanwhile, the hedonic roles served by virtual fitting technologies need to be considered as functional role as mentioned above. According to the result of Kim and Forsythe, the virtual try on technology serves a more hedonic role than other technologies, such as 2D views and 3D views. Thus, researchers strongly recommend retailers to use 3D virtual fitting technology to improve their performance. However, only a small percentage of retailers are using 3D product presentations and virtual models (Khakimdjanova & Park 2005). This is because these technologies require a big amount of cost and management resources.

Four aspects are involved in following discussion of 3D virtual fitting technology: creation of mannequin, generic bodies approach, cloth creation and simulation, and adoption of interactive fitting technologies.

A direct way is to use 3D body scanners to generate a personalized 3D mannequin. According to the working principles of 3D body scanners, there are three different types of body scanners: structured light projection body scanners, laser scanning body scanners and stereovision body scanners. These body scanners generate a 3D mannequin by using optical triangulations between the human body, the pattern projector and the light sensor. This method of creating 3D mannequins is hardly to be applied in B2C online shopping because of the high cost and the requirements for measuring. However, the 3D body scanning technology can provide useful analysis of the shape and the sizing by collecting measurements from customers. For example, TC2, a leading company in the 3D body-scanning field, has scanned nearly 11,000 individuals and created sizeUSA database. Similar databases, such as SizeUK, European Anthropometric Database, are developed by different organizations.

Using generic models is another way to create a mannequin. Instead of creating a new geometry model, deforming an existing model to obtain a new one is much easier. A generic model consists of a skeleton and a skin mesh and the skin is attached appropriately to the underlying skeleton. The attachment data of each vertex of mesh contain

corresponding weights and its influencing bones. Therefore, the vertex will move if the bone is rotated. In another word, the transformation of the bone automatically causes transformation of the skin mesh. This is a widely used method for skin deformation. In addition, shape parameter is another important element, which means a set of contours is used for representing the detail shapes of the body geometry. Given a measurement set, skeleton-driven deformations happen as well as elastic deformations, which refer to adding detail shapes on the body. (Kartsounis et al. 2002.)

The third way is getting information from photos and other devices. According to the useful information, a mannequin can be created. At least two photos that fulfill the requirements need to be provided for analyzing. The information of body contours can be extracted as well as a set of measurements such as bust girth. Then by using the technology of Non-uniform rational B-spline (NURBS) curves and body part templates, the 3D mannequin can be generated. (Kartsounis et al. 2002.)

2D patterns need to be created and placed around the body, and then, patterns are forced to pull together along the seaming lines according to simplified mechanical simulation. Through this approach, fabrics are placed on the body without gravity, friction and so on. In order to achieve these dynamical motions of the fabrics, mechanical parameters of the fabrics are set. In addition, the collision response and the friction are used for the animation of a garment move along with the virtual body. (Kartsounis et al. 2002.)

The 3D virtual fitting technologies mentioned above have not been used by mass market. However, many companies provide technologies in different levels that are related to body scanning and fit.

There are many companies focusing on body scanning related to fit. These companies mostly provide body-scanning services in bricks and mortar stores. For instance, Me-Ality, which is a Canadian company, provides fit service by scanning customers for 10 seconds. The company currently operates 65 kiosks and has announced to have 300 kiosks open in malls in the future (Polvinen 2012). Customers who have already been scanned can create and print their personal shopping guides, which content recommend products that are selected from 150 brands (Me-Ality 2012). Other leading companies in virtual fitting area such as Styku, TC2 and Human Solutions also have similar services.

Regarding online virtual fitting technologies, companies have diversified strategies and performances. Some companies are more focusing on the hedonic role of fitting technologies. Customers can enjoy the process of fitting instead of getting the exact fitting information for individuals. In another word, companies provide the fitting service to customers in order to offer a general view of their products. MyVirtualModel is one of these companies, providing 2D virtual dressing room service. Customers can mix and match products on a culture-ideal virtual model. There are some online stores such as

<http://simons.togoutfit.com/eng> using this service. Fitnect is also one of these companies. However, the technologies are more advanced than MyVirtualModel, combining augmented reality, cloth physics and full body motion capture together. Customers can try on the clothes and see themselves on the screen, and the clothes are moving according to the movements of the customer, with realistic mechanical simulation of fabrics. Now, using Microsoft Kinect controller, customers can try this service online at home. Since this technology aims at providing hedonic experience to customers as mentioned before, it is not able to offer size information to customers.

On the other hand, some companies are focusing on sizing service of fitting technology. The basic method is to ask customers to input their measurements, and then provide recommendations of size. For example, the well-known online service—True Fit, is using this method and has customers such as Macy's and Nordstrom (Polvinen 2012). There is no mannequin for presenting the product. Some similar services provide a mannequin for customers after imputing measurements. Bodypal, based on the method mentioned above, adds a mannequin to help customers to get more information about fitting. Customers can create a 3D mannequin, which is just a certain part of the body, based on their measurements, and try the recommend sizes on this mannequin and the personal data is saved by Bodypal website and can be used again when customers want to try the products from certain online shops corporate with Bodypal. However, there are some limitations regarding this service. Not every product of corporate websites has Bodypal fitting room service. Among products that have this fitting room service, some of them just have size recommendation. Another serious defect is Bodypal presents mannequins with wrong gender. Therefore, the service still needs to be developed to meet customers' requirements. FitsMe, essentially is a software-as-a-service business, also provides fitting room service. After customer inputs basic measurements, the robot can shift itself to his/her body shape and customers can choose different styles and sizes to try on with their robot mannequins. The fitting information of product presented by robot mannequins is more realistic in comparison with other services mentioned before. In another word, it is perceived as useful fitting information to help customers to make the purchase decisions. The ability to check before purchasing also decreases returns. As statistics from one client of FitsMe, Hawes & Curtis, show positive results about conversion rates and return rates. There is 57% increase in the conversion rate among customers who have used the fitting room, and 35% decrease in returns. In addition, in the survey of 181 customers, 66.7% of customers said that FitsMe virtual fitting room offers better shopping experience compare to other online retailers. (FitsMe 2012) Currently, FitsMe has customers including Ermenegildo Zegna, Otto, Pretty Green, etc. There are also other companies show interests in FitsMe, such as Adidas, which has similar survey on their online shop about fitting room.

It is undeniable that 3D virtual fitting technology market is growing very fast. The underlying reason is that online market is becoming increasingly important. Retailers need

technologies that provide fitting information to customers because it is essential for increasing online sales and decreasing returns. Although there are many services provided by different companies, very few meet the requirements of usefulness and entertainment. Besides, one can hardly find 3D virtual fitting room using complicated technology mentioned above. Many of them focus on providing entertainment to customers. Except the companies mentioned before, there are many other companies, including MIMICME, Swivel, Metail, etc. They offer rough presentations of products by trying them on models or customers so it is difficult for customers to get size information by this kind of fitting room. FitsMe has better performance regarding to providing size information. The robot from FitsMe can imitate about 2000 body shapes. Correspondingly, about 2000 pictures are taken when a sample clothes is placed on the robot (Kuang 2012). Therefore, it is reasonable to believe FitsMe uses the existing picture in database to present the product on robot after customers have inputted their measurements. It is a shortcut to avoid generating 3D mannequins and simulating clothes. Many other companies are chasing to provide services that completely using 3D virtual fitting technology, but seem still in the developing stage. As an example, Styku, corporates with Microsoft Kinect technology, created its smart fitting room according to its website. Styku also announced that they planned to sell the tool to customers for home use by the end of 2012, as well as major retailers to install the software inside store fitting rooms (Chang 2012). TC2, BodyMetrics and other companies are also involved in the competition of 3D virtual fitting technologies.

## 4. CASE STUDIES

### 4.1. Jcpenney

Jcpenney Company, founded by James Cash Penney in 1902, has grown to be a retailer with 1,102 department stores in America. Its business consists of selling products and providing services to customers in department stores. The products in jcpenney's department stores range from family apparel, footwear, accessories, fine and fashion, jewellery, to beauty products and home furnishings. The services provided by jcpenney in its department stores are styling salon, optical, portrait photography and custom decorating. Jcpenney established online website jcpenney.com in 1994, and is one of the earliest retailers that entered Internet retailing. (Jcpenney 2013)

#### 4.1.1. SWOT Analysis

SWOT analysis is a method to evaluate a company and its environment. SWOT is stand for strengths, weaknesses, opportunities, and threats. Strength and weaknesses are internal factors. On the other hand, opportunities and threats are external factors. The analysis enables a company to identify the positive and negative factors inside and outside the company. The following table is developed based on analysis of jcpenney's annual reports, financial reports and other available resources on the Internet.

##### **Strength**

Jcpenney has rich heritage because of its long history. As mentioned before, it founded in 1902 and started selling online in 1983. Jcpenney has abundant Human resources. The management team is lead by Ronald B. Johnson, who previously served as Senior Vice President, Retail of Apple. Before joining Apple, he was Vice President of Merchandising of Target Corporation. There are also other professionals working for jcpenney such as Michael R. Francis, President of company and Michael W. Kramer, Chief Operating Officer. Concerning financial resources, jcpenney had 1,085 million dollars in cash as it stated in Reports 2012 Fiscal Third Quarter Results, with access to credit line as much as 1,500 million dollars. (Jcpenney 2012) Jcpenney also has the strength of diverse sales channels. As a multi-channel retailer, jcpenney has more than 1,000 department stores, catalog that debuted in 1963, and online website jcpenney.com. And the decreasing inventory is another advantage for jcpenney. Because of the products characteristics, decreasing inventory level is always a goal in fashion industry. According to the presentation of third quarter 2012, the inventory declined 369 million dollars.

		Helpful	Harmful
Internal	Strengths	<b>Rich heritage</b> <b>Adequate human resources</b> <b>Adequate financial resources</b> <b>Diverse sales channels</b> <b>Decreasing inventory</b>	<b>Uncertainties of transformation</b> <b>Falling sales</b> <b>Shrinks of customer base</b>
	Weakness		
External	Opportunities	<b>Low bargaining power of suppliers</b> <b>Fast development of technologies</b> <b>Increase of online shopping</b> <b>Collaboration with brands and designers</b>	<b>Economic recession</b> <b>Fierce competition, especially price war</b> <b>Increased bargaining power of buyers</b> <b>Difficulty to management suppliers</b> <b>Legal problems</b> <b>Celebrity</b>
	Threats		

Table 3: SWOT analysis for jcpenny

### Weaknesses

The weaknesses of jcpenny are obvious. First one is the falling sale. The consistent declining of sales attracted everyone's attention, as indicated in Table 4. And comparable store sales declined 18.9 %, 21.7% and 26.1 %, respectively, in three quarters in 2012. (Jcpenny 2012) The first thing for jcpenny is to return to growth next year, according to Mr Johnson (D'innocenzio 2012). However, the analyst from Deutsche Bank, Charles Grom, point out: " Trends at jcpenny are obviously getting worse, not better, and we are becoming more and more convinced that sales in 2013 will also decline." And the share value of the company has fallen 50% since the beginning of 2012. (Sorkin 2012) Second weakness is shrinks of customer base. According to statistics, the number of customers coming into the store dropped 12 percent compare with the same period in 2011. (D'innocenzio 2012) The big drop of the sales is caused by the transformation, including many aspects. Many people have the opinion against Mr Johnson, believing the strategies would not be successful. However, jcpenny just started to transform in 2011, and it is still on the way of adjusting its strategy. It is reasonable have some resistance when trying to turn the direction of a big ship. So the uncertainty of transforming is also one of weaknesses that jcpenny has. In addition, jcpenny has adopted inappropriate social media strategy. Facebook could be a good example as will be mentioned in section 4.1.3.4.

	First quarter	%Inc. (Dec.)	Second quarter	%Inc. (Dec.)	Third quarter	%Inc. (Dec.)
Internet sales	271	-27.9	220	-32.6	214	-37.2
Total sales	3152	-20.1	3022	-22.6	2927	-26.6

*Table 4: Sales and growth rate in 2012. (Data from three quarterly financial reports of jcpenny)*

### Opportunities

Low bargaining power of suppliers is one of the opportunities for jcpenny. Jcpenny has a big supplier base, both domestic and foreign. Products are coming from 2,500 suppliers, which are managed by the international purchasing subsidiary in Texas (Jcpenny 2013). Therefore, the bargaining power of jcpenny is relatively high because it is concentrated compared to suppliers. Another opportunity is technology. The fast development of technology creates the chance for jcpenny to improve its competitiveness. Jcpenny has a plan to use Radio Frequency Identification (RFID) to eliminate traditional cash wrap stations, allowing customer to checkout anywhere, anytime, including self-checkout. According to Mr Johnson, who is chief executive officer of jcpenny, the company is going to move to a 100 percent RFID implementation and eliminate the cash wrap by the end of 2012. (Blair 2012) Also, jcpenny selected Oracle to support the transformation. Oracle is one of the leading companies that provide IT solutions, as motioned in chapter 3. According to the report of Forrester in 2012, it has a strong market position as indicated in table 3. Jcpenny will use Oracle Retail solutions to improve operations and cross-channel customer experience during its transformation. It will use 11 different products from Oracle, including Oracle Retail Supply Chain Planning and Execution, Oracle E-Business Suite, Oracle Merchandising Operations Management, etc. (Oracle 2012) And as indicated in section 2.2.2, e-commerce in fashion industry is consistently growing. This is also an opportunity for jcpenny to develop its e-commerce. Collaboration with brands and designers is also a good opportunity for jcpenny. For instance, it developed the partnership with Martha Stewart, who is leading lifestyle expert, planning to launch home and lifestyle products in February 2013 (Jcpenny 2011).

### Threats

Since the economic situation all over the world is gloomy, so jcpenny have to face this threat. And jcpenny is vying to survive among competitors including Kohl's, Dillard's and Stage Stores, etc. In addition, the bargaining power of customers is high because they can shift to another retailer easily. This will make companies to set lower price. Therefore, companies need to lower the costs of production in order to maintain positive net income. Another strategy is to focus on product differentiation, which is carrying

exclusive brands. The bargaining power of these brands tends to be at a moderately high level. To find the point to balance bargaining power of buyers and bargaining power of suppliers is vital in retail industry. Thus, jcpenny faces the threat of managing suppliers. As mentioned in previous paragraph, it has collaborated with Martha Stewart. But this led jcpenny to the lawsuit with Macy's in August 2012. Macy's had this legal battle against jcpenny about its agreement to sell certain Martha Stewart products exclusively. This battle just ended in 2013, the result was the products of Martha Stewart would be limited in jcpenny stores until the dispute at a trial begin on 19<sup>th</sup> of February. (D'innocenzio 2012) Another threat is celebrity choosing. Jcpenny started to collaborate with Ellen DeGeneres, who is an American television host and actress. Because her first job was working at jcpenny store, along with her light-hearted humour, jcpenny believes she is appropriate spokesperson for the company. However, some of the customers did not buy it. The offshoot of American Family Association, one Million Moms, pushes jcpenny to drop Ellen DeGeneres, since she is a homosexual talk show host. (Sachteleben 2012) Jcpenny is still holding the belief that Ellen DeGeneres shares the same values, which is treating people fair and square. If it is the strategy of jcpenny to tell customers the value of its company by this argument, it might be going to the wrong direction because it has no positive influence. Celebrity is not a tool to prove the value of the company, but someone to represent the value.

#### **4.1.2. Vision and Objectives**

Jcpenny wants to become America's favourite store by treating customers Fair and Square, providing dynamic shopping environment and new shopping experience to customers (Jcpenny 2011). The company's objective is to attract middle-income families by offering stylish, high quality products at a reasonable price (Jcpenny 2013).

#### **4.1.3. Strategy Decisions**

##### **4.1.3.1 E-business Priorities**

Jcpenny is a traditional retailer in department and discount segment with more than 100 years history. It launched the jcp.com in 1994, and began to merchandise via Internet (Jcpenny 2013). Internet sales accounted for 4 % in 2005, and increased to 6 % of jcpenny's total sales of 20 billion dollars in 2006. In the first three quarters in 2012, the Internet sales accounted 7.7% of total sales. In 2010, Internet sales reached its peak, 1.5 billion dollars with 4.4 % increase compared with 2009. From the end of 2010, jcpenny was active about the extension of online channel: opened complete store within facebook; launched the CladMen.com, a men's apparel e-retail site, and Gifting-Grace.com, a gift site. However, all of these websites have been closed. According to jcpenny, it wants to focus its efforts to revitalizing the jcpenny brand. (Enright 2012) It is reasonable since jcpenny is suffering from the transformation, which is planned to finish by 2015.



#### **4.1.3.2 Business Model**

Jcpenney belongs to the category of E-shop. However, the online channel is not alone. It integrates with store and catalogue. One of the fruit of integration is that customers can pick up the products in the nearest jcpenny's store to eliminate the shipping fee. It also has developed mobile commerce technology since the end of 2010, including different operating systems (Borhan 2010). Apart from basic functions for transaction, jcpenny integrates many other functions. First is it covers the function of virtual communities: allowing customers to add their information for every product. Second, jcpenny has separate warehouse and distribution system for online channel to ensure the shipping service for customers. This performs as the function of value chain integrators.

#### **4.1.3.3 Marketplace Structure**

As a traditional retailer, jcpenny does not need to face the transformation of marketplace structure. For companies that have own brands of products, they need to choose whether to go for Internet by themselves or through different kinds of intermediates. For jcpenny, it can play the same role as it used to be.

#### **4.1.3.4 Marketing Strategies and Customer Relationship Management**

Market penetration is the main strategy for online store of jcpenny. This strategy is relatively conservative compare with diversification, as indicated in figure 16. Although it applied more ambitious market strategies before, such as CladMen.com, which collaborated with Esquire Magazine and aimed at men between 25 and 54, it has abandoned these strategies. The price and products are almost the same as in stores. The price strategy is one of the most important strategies for jcpenny's transformation. The initial plan is three kinds of prices: everyday, month-long and best, without sales promotions, coupons and door busters. This strategy was applied in February of 2012. However, 6 months later, jcpenny eliminated month-long price. And brought back hundreds discontinued promotions in January 2013. Now, there are 2381 items on sale in the catalogue of women in online shop. What is more, jcpenny planned to add new price tags or signs to more than half of the products to show how much customers can save when shopping in the stores. Some brands such as Arizona even have competitors' price. (D'innocenzio 2012) The initial price strategy is to be straightforward to the customers without discounts and coupons. However, it is extremely difficult to change the customers' habits: high price is listed to communicate the value of products, and then coupons and discounts are delivered to prove it is a "good deal". Another problem is jcpenny has so many brands, and is not relying on own brand such as IT company Apple. When dealing with own brand, this price strategy could be successful with other important elements such as product. Multiple brands are hard to manage because they offer different products, which is hard for unifying the brand image of jcpenny. And they may have contract with jcpenny's competitors at the same time. Price compari-

sons are easy for customers. Nowadays, the most important brands to jcpenny, mostly private brands exclusive to the company, are: St. John's Bay, A.N.A, Stafford, MNG by Mango, Liz Claiborn, Arizona, etc. Jcpenny also tried to reduce promotion events from 582 times in 2011 to 12 times in 2012. (Ostlund 2012)

Concerning CRM, jcpenny has put a lot of efforts. Search engines are important for retailers because more than 80% of web users use search engine to find information (Chaffey 2002). Therefore, strong performance of search engine results can increase the traffic of a site. For instance, based on 12 months data, there are 11.1 million people search "dresses" in Google a month. If jcpenny was No. 1, it would attract about 3.8 million visits every month. Search engines mainly base on five parameters to rank different website. One of the parameters is the number of links. For example, jcpenny.com is going to have higher rank if there are many links in other websites guide visitors to jcpenny's website. Jcpenny has used this parameter to improve the position for several months in 2011. In those months, jcpenny bested millions of sites in searches for dresses, bedding, area rugs and dozens of other words and phrases. However, the Times sent Google the evidence that jcpenny violated the guidelines, which is more than 2,000 paid links. And Google took action against jcpenny to demote its position of search results. (Segal 2011) Another way to build traffic is social network. Jcpenny also put a lot effort to attract customers from Facebook and twitter. One of the biggest moves is opening a complete store with 250,000 items on Facebook in December 2010. But one year later, the shop was closed. And in the beginning of February, jcpenny developed another new page for itself, which means abandoned 3 million fans of the old page. (Lutz 2012) It is vital for companies to understand the role of social network. It is an online tool for communicating with customers, not for selling products.

## **4.2. Park & Bond**

Park & Bond was an online men's store built by Gilt group. It was launched on 8<sup>th</sup> of August 2011, and closed in February 2013. This standalone luxury retail site did not survived for a long time in fierce competition because of the inappropriate e-commerce strategy.

### **4.2.1. SWOT Analysis**

Before analyzing the strategy decisions of Park & Bond, it is necessary to review the information about its internal resources and external environment. So SWOT analysis is applied as previous case, table 5 is developed based on analysis of information that are collected from Internet.

		Helpful	Harmful
Internal	Strengths	<b>Adequate financial resources</b> <b>Adequate human resources</b> <b>Advanced technologies</b> <b>Customer base</b>	<b>Price disadvantage</b> <b>Only has online sales channels</b> <b>Falling sales</b> <b>Poor performance of service</b>
	Weakness		
External	Opportunities	<b>Increase of geographical market</b> <b>Great potential menswear market</b> <b>Increase of online shopping</b> <b>Fast development of technologies</b>	<b>Economic recession</b> <b>Lose of key alliance</b> <b>Lack of product supplies</b> <b>Fierce competition</b> <b>Increased bargaining power of buyers</b>
	Threats		

Table 5: SWOT analysis for Park & Bond

### Strength

Since Park & Bond was under the name of Gilt, which is a successful luxury fashion online store opened in 2007 and operates on a flash sale model, it has plenty human resources and financial resources. The management team of Park & Bond was led by general manager of Gilt Keith George, merchandising manager Brooke Cundiff, two experienced editor Tyler Thoreson and Jared Flint. (Park & Bond 2013) Park & Bond also had strong financial support from Gilt, which increased its revenue to 605.0 million dollars with 189.0% compound annual growth rate. Gilt is an experienced company with front technologies concerning about online retailing. Based on data analysis of the company, 2000 versions of emails are sent to customers. It also has impressive achievement regarding to new technical channels such as smart phones and ipads. Thus, Park & Bond had many technologies back up from Gilt. Besides, Gilt's high value member-base, which had been generated to 5.0 million by the end of 2011, is another advantage for Park & Bond. (Carroll 2012)

### Weakness

The weaknesses of Park & Bond are not hard to be observed. Because it was a full price men's luxury apparel site, there is no price advantage to it and the single channel for Park & Bond is also counted as a weakness. Although it had pop-up shop for 11 days during December in 2011, Park & Bond never had a plan for a permanent store (Palmieri 2011), and for luxury product customers, prestigious environment is very im-

portant. However, it is difficult for an online store to create such environment through visually appealing and service quality.

### **Opportunities**

Regarding to external environment, the threats for Park & Bond are heavier than opportunities. Opportunities for Park & Bond including great potential menswear market, as many experts indicated. In addition, Park & Bond extended the geographical market to 100 countries. Besides, increases of online shopping as mentioned in the second chapter and fast development of technologies are two helpful external elements for Park & Bond.

### **Threats**

Park & Bond faced serious threats. The economic recession all over the world boosted private sites such as Gilt, Rue La La and HAUTELook, because the decreasing sales of luxury products cause big amount of “price-off” products for selling and the business model of these websites is more suitable than traditional business model. Therefore, the risks for selling full price luxury products are relatively high. One of threats for Park & Bond is losing its key alliance. Park & Bond has cooperated with GQ magazine from September 2011 to February in 2012. (GQ 2013) Selected items would be promoted within the pages of GQ’s monthly issues and showed on GQ.com that will lead viewers to Park & Bond. However, GQ magazine stopped the partnership with Park & Bond and turned to Nordstrom. Losing important alliance is not just losing sales. It will also influence the brand image of Park & Bond and shopping experience for customers. Another threat is coming from the up side of supply chain. Because of the characteristics of luxury products, brands have tight inventory. So there are fewer supplies for Park & Bond compare with normal fashion products. Park & Bond was in a fierce competitive environment, having numerous competitors such as MR PORTER. In addition, with the fast development of information technologies, customers are sensitive to the price because they can easily detect the price of products.

## **4.2.2. Vision and Objectives**

PARK & BOND was tailored to the specific needs and target on American male luxury customer. The site provided more than 100 brands to the customers and information of guidance to help them look and feel their best. (Park & Bond 2013)

## **4.2.3. Strategy Decisions**

### **4.2.3.1 E-business Priorities**

Park & Bond is an online luxury fashion retailer, allowing customers to finish transactions online and providing service online. However, luxury products, as a special product category in fashion industry, have many characteristics to go against online selling. Luxury fashion products have high diversity compare with large quantity products with

same standards. Usually customers do not need to view to purchase standardized products. So luxury products do not have this advantage regarding online transaction. In addition, service and shopping environment plays vital roles in selling process of luxury products. It is hard for retailers to translate these invisible elements into visible elements. And value proposition is also one of the important reasons for customers shopping online. If Park & Bond cannot provide this benefit to customers, there are plenty of reasons for them to choose traditional stores.

#### **4.2.3.2 Business Model**

Park& Bond belongs to third party marketplace category regarding business model. It integrates many functions, including payment and ordering. And it dealt logistics service with UPS. Because Park & Bond was a retailer, it focused on innovation of service instead product development. It tried to provide professional information and guidance from editors to increase the customer perceived value. This is similar to one-way direction of virtual community. However, the frequency of updating this information and guidance was quite low. The webpage of Park & Bond did not change from November 2012 to January 2013. Another leading edge service Park & Bond offered to customers was virtual fitting room, which was provided by Fits.Me. After inputting the measurements of height, neck, chest, waist, waist to the back of the neck and torso length, customers can try five different sizes of the products. The fitting room would use one torso to “try on” products, which is quite efficient for customers to choose the size, as mentioned in the previous chapter. The following two figures are outcomes from fitting room of Park & Bond. However, the fitting room was not applied on every product. About 80 % of the products of Park & Bond did not have fitting room for trying on. It is reasonable since the technology of Fits.Me has its limitation: companies such as Park & Bond need to send product samples to take pictures on different torsos with different sizes. However, the quantity of luxury products is smaller than fashion products from mass production. So it is hard for companies to send many samples to Fits.Me to take pictures.

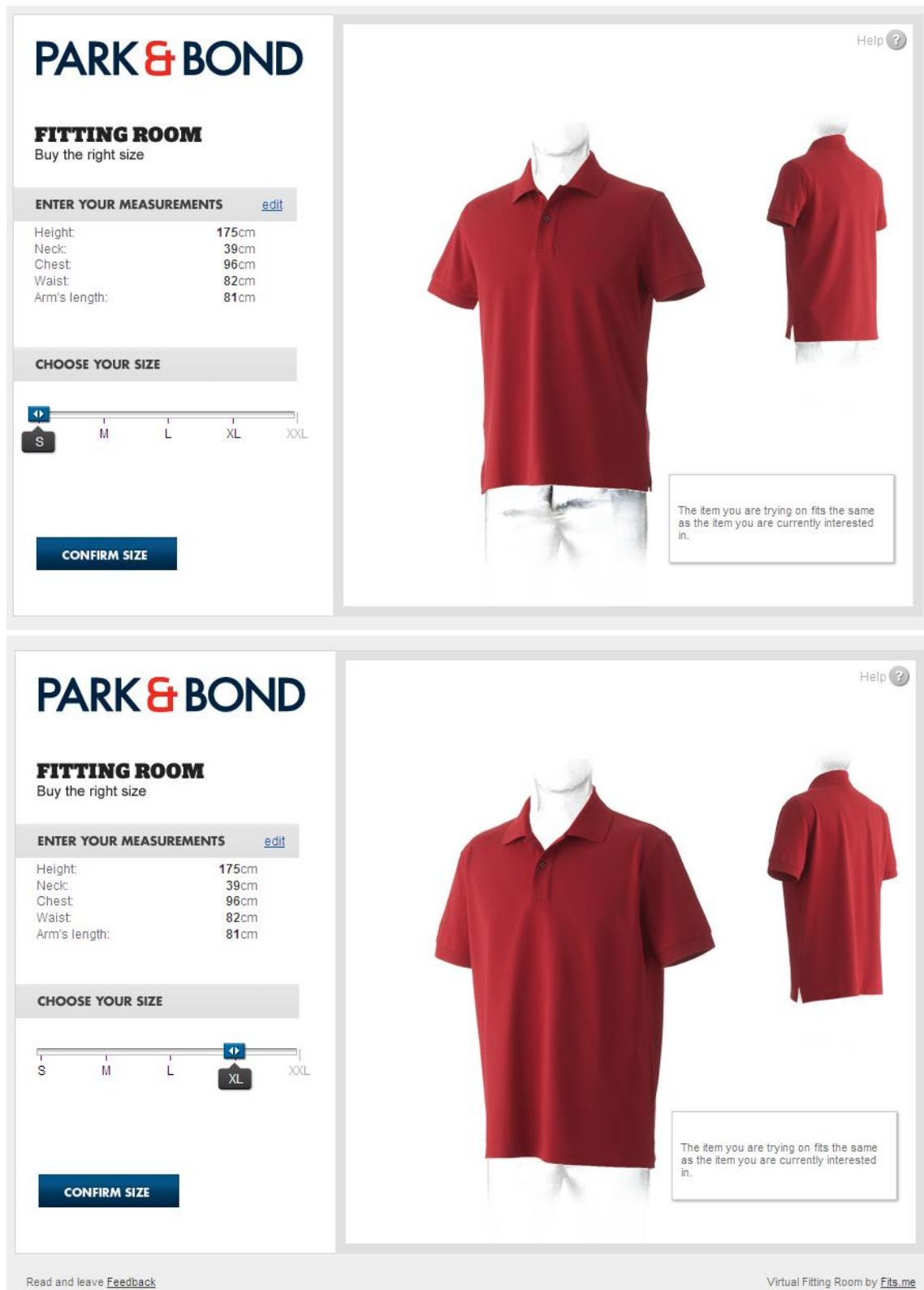


Figure 14: Trying on Results (Park & Bond 2013)

#### 4.2.3.3 Marketplace Structure

Gilt Group, including Park & Bond, is one of the outcomes from reintermediation, as indicated in second chapter. Gilt Group is successful because it plays an important role

when luxury brands want to “digest” the inventory. It is an online outlet but has more advantages than traditional ones, helping luxury brands saving resources that needed to spend on traditional outlet and increasing efficiency of getting rid of inventory. However, Park & Bond is another intermediary that functions more like traditional store, which did not have price advantage. It gathers information and products for customers, and let customers to accomplish the purchase online.

#### **4.2.3.4 Marketing Strategies and Customer Relationship Management**

Park & Bond used as market development tool by Gilt. Market development strategy is a relatively conservation strategy compare with diversification strategy, which applied by Gilt Group in other sectors such as Food & Wine, Travel. Park & Bond target at a new customer segment, which is different from the customer base of Gilt. The high value customer base of Gilt emanated from friends of the founders& core employees referring new customers, and it has been growing by word of mouth marketing. Until now, inviting friends can help customers to get 25 dollars. But these customers mostly belong to the group of bargain shoppers and group of pulse buyers. They are quite sensitive to the price compared with other kinds of shoppers. Also, they were confused about the positions of Park & Bond and Gilt Men.

Park & Bond did not perform very well on CRM. There was no registration before entering the website, which is different from most of Luxury online retailers. It might be a way of avoiding discontent of customers, but it also results in losing the chance to get important information such as email addresses. In addition, losing the cooperation with GQ magazine was losing online traffic of Park & Bond. And this also influenced the results of search engines. Because search engines rank website more highly when there are links in from other websites. Regarding customer retention, Park & Bond lost its sight of online services. First is personalization and mass customization; lack of tailored web content and email contacting decreased the quality of the service. Online retailers such as Amazon will recommend similar books according to what customers have viewed before. Also, updating frequency is an important element, which considered by 54 % of the customers in Forrester Research of 8600 US customers when they want to visit the website again (Chaffey 2002). Park & Bond has not updated the website for three months. So the impression of the website quality to customers was not good.

### **4.3. Amazon**

Amazon.com was founded by Jeffrey Bezos as an online bookstore in July 1995 and went public in May 1997. It offers DVDs, CDs, MP3 downloads, software, video games, electronics, apparel, furniture, food, toys, and jewelry. Amazon has its website for separate countries, including United States, Canada, United Kingdom, France, Germany, Italy, Spain, Brazil, Japan and China. According to the report of yStats.com, Amazon is

the leading Internet retailer in North America, UK, and Germany in terms of sales in 2011.

#### 4.3.1. SWOT Analysis

SWOT analysis is used to evaluate Amazon and its environment. The following table is developed based on analysis of Amazon's annual reports, financial reports and other available resources on the Internet.

		Helpful	Harmful
Internal	Internal	<b>S</b> trengths Largest online retailer Increases of sales Adequate human resources Efficient of supply chain and logistics Customer oriented strategy Customer services Diverse product offerings Price advantage Customer base	<b>W</b> eaknesses Decreases of profitability Decreases of operational efficiency Decreases of liquidity Weak performance in some emerging market such as China Only online presence
		<b>O</b> pportunities Global expansion Increases of sales from third party sellers Alliance of websites and portals High customer satisfaction Increase of online shopping Fast development of technologies	<b>T</b> hreats Economic recession Stringent government regulations Foreign exchange fluctuation

Table 6. SWOT analysis for Amazon

#### Strengths

Amazon.com is biggest online retailer in UK, Germany and North America, as mentioned before. And Amazon also has the strength of increasing sales. According to Amazon annual report in 2011 and fourth quarter report in 2012, the net sales in 2012 were



61,093 million dollars, increased from 48,077 million dollars in 2011. Among sales in 2012, 34,813 million dollars came from North America. The compound annual growth rate from 2007 to 2012 was 32.7%. And its cash and cash equivalents were growing year by year. Regarding about the human resources, except the founder Jeffrey Bezos, Amazon.com hired Richard Dalzell and Jimmy Wright in 1999. Before serving in Amazon.com as Chief Information Officer, Richard was Vice President of Information Technology Supporting in Wal-Mart. And Jimmy Wright was Vice President and Chief Logistics Officer in Wal-Mart. Amazon.com invested a lot in logistics, including distribution centers and related technologies. In Amazon's annual report of 2012, the investment of logistics was 3,785 million dollars in 2012, increasing from 1,811 million dollars in 2011. (Amazon 2012) And according to Marc Wulfraat of MWPVL consulting, at the beginning of 2012, Amazon.com has 32 fulfillment centers in North America totaling approximately 23 million square feet of space. And one year later, according to the information from same consulting company, Amazon.com operates 42 fulfillment centers in North America exceeding 32.4 million square feet of space. These do not include fulfillment centers from Amazon subsidiaries such as Zappos. However, the fulfillment cost increased every year from 2009, which is 8.4% of sales, to 10.5% of sales in 2012.

There are several reasons to be considered. First, more customers had joined Amazon Prime, which includes free shipping with no minimum order size. Or customers placed more orders over minimum spend to enjoy super saver shipping service provided by Amazon. Second, the product mix shifts from virtual products to general merchandise category. Third, Amazon has used more expensive shipping method, such as drop shipping. In this way, third party sellers using the packages and following the principles from Amazon to ship the products, in order to increase margins. Decreasing the fulfillment time for customers is just one tactic of customer-orientated strategy, which is one of the most important strengths of Amazon. Other high quality services offered by Amazon also focus on customers. The typical one is 1-click ordering, which help customers to store the billing information and check out quickly. Amazon also has other patented processes that bring convenience to customers. In addition, Amazon offers a complete spectrum of products options, which considered as the strength of Amazon. For instance, Under Armour has 1,061 products listed in the clothing & Accessories category of women. On the other hand, there are 333 products on the website of Under Armour. Meanwhile, the price of products at Amazon is always lower than many brick-and-mortar store and other online stores. One of biggest reasons is tax. According to the 1992 Supreme Court ruling from *Quill v. North Dakota*, companies need to collect sales taxes from their customers when they have a presence in the state in which they reside. In another word, the customer just needs to pay tax only if the store has substantial operations in his/her state. In 2012, Amazon collects tax from customers on Kansas, Kentucky, New York, North Dakota and Washington. This means the price of a certain product at Amazon is 5% to 9% lower than from other competitors who have stores and

need to charge tax from customers. Because of all these elements, Amazon has a large customer base, reaching 152 million in 2012. (Krantz 2012)

### **Weaknesses**

One of Amazon's weaknesses is decreasing profitability. Although the company's revenue increased as mentioned before, according to the annual report from Amazon, there was a decrease of margins and profitability. The operation income has decreased for four years, from 1,406 million dollars in 2010 to 655 million dollars in 2012. Correspondingly, operation margin decreased year by year. It was 4.11% in 2010, 1.79% in 2011 and 1.10% in 2012. And the net profit margin even went to negative value since the net profit was -39 million dollars in 2012, which was 631 million dollars and net profit margin was 1.31% in 2011. In addition, the liquidity of Amazon was also declining. Although the current ratio was almost the same in 2011 and 2012, the quick ratio was decreased from 0.84 in 2011 to 0.80 in 2012, which means the company's ability to pay its short-term obligations decreased with the time. Amazon also faces issue with increasing receivables. From 2007 to 2011, the compound annual growth rate of receivables was 39.34% (Globaldata 2012). Amazon has good performance in some countries such as UK and Germany. However, in some emerging market, such as China and India, Amazon did not perform very well. For instance, in China, which has 8,100 billion Yuan turnover, Amazon just had 2.6% market shares among B2C online websites (iResearch 2012). There could be several reasons for this. One is Amazon is still developing in China. There are 10 fulfillment centers in China, far away to reach the same level in US (Xin 2012). On the other hand, China regulates Amazon's and its affiliates' business and operations in the country by regulations and licensing requirement. For instant, in December of 2012, the Kindle store in China was being investigated by the country's General Administration of Press and Publication at the beginning of its launching. According to administration's director, Amazon China is using its Chinese partner's licenses to operate its own store, which is in violation of government regulations. (Whitney 2012) In addition, Chinese customers have different shopping behaviors from American customers. Instead of using email, they would prefer to use certain kinds of chatting software to communicate. They already got used to website layout and the way of searching products, and online payment service provided by domain website. Last but not least, Amazon is one channel retailer, without traditional stores.

### **Opportunities**

However, Amazon still has good opportunities in foreign countries. Amazon US site features a page with products for international customers called AmazonGlobal. Amazon will display the prices include import tax and customs clearance fees. Amazon provides shipping service to the customers in 66 countries and regions. In addition, the increasing sales from third party sellers are also opportunities for Amazon. Since Amazon is also a marketplace for third party sellers, there are different fees paid by third party sellers, including commissions, related shipping fees, digital content subscriptions and

non-retail activities, are increased from 14.5% in 2011 to 18.1% in 2012. These sales contribute 61.9% gross margin for Amazon in 2012. What is more, third party sellers sold 36% of total units and the rate kept growing. (Amazon 2012) Amazon has developed affiliate program, which will be discussed in section 4.3.3.4. This alliance of websites and portals helps Amazon to reach more customers. In addition to this, Amazon has good chance to take advantage of the distribution system and e-commerce knowledge to gain customer satisfaction. According to ForeSee, an analytic firm, Amazon was ranking first in the report of evaluating customer satisfaction for the second consecutive year. 26% of Amazon's customers would like to return to the website and 21% more committed to the brand. (Freed 2012)

### **Threats**

Besides the global economic recession that was mentioned before, Amazon is facing threats when it is in foreign markets. Except the Chinese regulation violation, UK also investigated Amazon in April of 2012 because it had £3.3 billion sales in UK in 2011 and paid no corporation tax of the profit from that income. There are other countries, including Germany, France, Japan and Luxembourg, have similar investigation of Amazon. (Griffiths 2012) Since Amazon has 43% revenue came from foreign countries, it is important to solve these problems and maintain the good reputation. Meanwhile, because of the same reason, the exchange rate may also influence the profit of Amazon.

## **4.3.2. Vision and Objectives**

The vision of Amazon is to be Earth's most customer-centric company; to build a place where people can come to find and discover anything they might want to buy online. (Amazon 2013)

## **4.3.3. Strategy Decisions**

### **4.3.3.1 E-business Priorities**

Amazon has no brick and mortar store nowadays. There are rumors that Amazon is planning to open retail stores, but Amazon has not released any news about opening brick and mortar stores. For most of products sold by Amazon, it is not urgent for Amazon has its retail stores to present them, because these products could be found in other traditional retail stores. Therefore, many traditional retailers became the showrooms for Amazon. However, Amazon still needs to keep alert because these traditional retailers may fight back. In May of 2012, Target, one of the leading retailers in US, stops selling the Kindle, which is Amazon's flagship products (Heller 2012).

### **4.3.3.2 Business Model**

Amazon has a complex business model. It is an E-shop, a third marketplace, a virtual community, a value chain service provider, as well as an information brokerage.

As an e-shop, Amazon sells its private labels products, including Pinzon, AmazonBasics, etc. As a third-party marketplace, Amazon also offers new and used items offered by large amount of sellers, and collects selling fees from sellers. Sellers could choose to subscribe different selling types. Amazon is among the few pioneers to develop on-line community. The reviews from customers turn into large part of the content on the website. And the content is growing, which attracts others to add more reviews. Therefore, Amazon is creating a virtual cycle. Also, there are a lot of invisible customers influenced by these reviews. As a value chain service provider, Amazon also provides shipping service to sellers, by using its fulfillment centers. Amazon also offers payment solutions that enable customers to pay on websites with their Amazon accounts. In this way, websites that use payment solutions to simplify payment process for customers. In addition, Amazon also provides advertise services, website building services, and web service that provides a large computing capacity faster and cheaper than physical server farm. All these services are charged differently based on different solutions. As an information brokerage, Amazon had different programs, including “Eyes” program and “Editor’s Service” program that personal notification were sent to customers by emails (Kotha 1998).

#### **4.3.3.3 Marketplace Structure**

Amazon is a outcome of Reintermediation. It is an connection benefit for customers and suppliers. For customers, Amazon provides numerous choices with good prices, good service and shipping for them. It is convenient for customers because they do not need to collect the information from different suppliers. For suppliers, it is attractive to reach 152 million customers through Amazon. And Amazon is also a customer information center, which can help suppliers to target valuable customers in order to increase sales.

#### **4.3.3.4 Marketing Strategies and Customer Relationship Management**

The strategies of Amazon.com and its clothing and accessories category are different. Amazon.com keeps on its diversification strategy, growing from book business to 16 categories. And the most recent movement of Amazon was the launching of Amazon Wine Marketplace (Amazon 2013). The strategy of clothing and accessories category is market development. Besides apparel offering on core website, it is trying to reach different target groups. Since Amazon.com has created the brand image as low price for mass production merchandises, it is incoherent to split the image for clothing and accessories category. Therefore, Amazon has other separate websites with different positions. MYHABIT.com, launched by Amazon in 2011, is a private fashion sale websites offering big discounts. It adopted the flash deal business model and is competing with websties such as Gilt, Rue La La. (MYHABIT 2013) Shopbop.com targets the higher end of shoppers. The website offers editorial lookbook features and receives frequent mentioning in other magazines. It was acquired by Amazon in 2006. (Shopbop 2013) Another important website is Zappos.com. Amazon spent 1.2 billion

dollars to acquire this online shoe website in 2009. This is the biggest acquisition in Amazon's history. Zappos.com is estimated to generated 80% of its revenue from shoes, and its goal of clothing sales is 1 billion dollars by 2015. (Shaw 2012) In addition, Amazon put a lot of effort to improve its presentation and high end brands expansion. According to the president of fashion for Amazon, Cathy Beaudoin, the photography studio in Kentucky can shoot more than two images a minute. In total, there are 3,000 images a day produced by Amazon. And professional models also need to spin and pose to show off the clothing. Concerning the high end brands expansion, Amazon has signed on hundreds of brands in 2012, including Vivienne Westwood, Jack Spade, Tracy Reese, Michael Kors, and it continues to sign more. (Clifford 2012)

Amazon performed well in CRM. On customer acquisition, Amazon use different tools to drive customers to Amazon, including search engines, e-mail campaigns, affiliating programme, etc.

According to the result from WebPosition Search Ranking study, Amazon has highest visibility on Google, MSN, Ask Jeeves, Teoma and Yahoo! among four major retailers in United States. Visibility Percentage of Amazon was 34.67%, followed by Wal-Mart at 14%. Visibility Percentage was calculated by the results from first three pages of search results for its targeted keywords and search engines. If a website appears on the first position for target keywords in all search engines, its organic visibility percentage is 100%. Adding sponsored search listings to search results, Amazon's visibility percentage increased to 52%. (Baker 2004) So it is convincible that Amazon has invested a lot to improve its visibility on search engine results. In fact, it was the biggest customer of Google in 2012 according to the research from AdCooroo, and it monthly spends nearly twice as much as the next largest spender. Although Amazon led in the Pay per Click (PPC) spend in the category of Fashion & Apparel on Google, the results were not very good. Top advertisers had more than three times as many impressions per category keyword per day as Amazon. And Amazon has the third highest cost-per-click, second lowest click-through rate and lowest ad coverage. (Hamilton 2012) However, Amazon is not satisfied with being led by other search engines. It launched A9.com for powering its product search on Amazon.com in 2003. During its development, it has provided open search service for customers such as Google; maps of street view for customers; augmented reality application for shopping on smart phones; CloudSearch service for different kinds of businesses and so on. (A9.COM 2013) Integrating of these services and search technologies, Amazon.com could provide high quality product search service to its customers. Actually, according to the survey from Forrester, 30% of customers surveyed said they began searching their most recent online shopping through Amazon.com (Ludwig 2012).

Amazon is also the first adopter of affiliate program. The program is called "Associates Program" and launched in 1996 (Chaffey 2002). This program is aiming at generating

more customer traffic to Amazon's website. Amazon will offer commission that range from 4% to 10% to other websites if they success to help Amazon to sell the products (Amazon 2013). In this way, Amazon could reach different customer groups through different websites. Some specialist websites have more power to attract customers in that field than Amazon. Therefore, Amazon enjoys the advantages that other websites bring to it and also share part of the benefits with them.

Email not only plays an important role in communicating with customers, but also is a useful tool for customer retention. The emails send to customers are created for each individual person according to their online behaviors, wants and needs. This creates a personalized user experience and increases the conversion rate. In addition, Amazon has different homepage for each visitor. It will keep users logged in by using cookies, so users could easily check their account, wish list, recommendation and other information. And based on the prior search, page view, purchases and written views, Amazon has several parts on homepage for each visitor, including "Inspired by Your Shopping Trend", "More Top Picks for You", "Recommendations for Your Kindle Store" and "Your Recent History". What is more, Amazon has well built community formed by reviews from customers. This influences numerous customers since there are 10 invisible visitors corresponding with 1 protagonist (Chaffey 2002). All these based on a database of customers, a database of products information, an order processing system, a webpage management system, automated communication systems, site design and appearance (Jenkinson 2005).

## 5. DISCUSSION

### 5.1. E-business proprieties

According to the degrees of online revenue contribution and change required, the general options are expressed as the curve in figure 15 by Chaffey.

The horizontal axis is online revenue contribution. It refers to the proportion of sales that is achieved online. According to the four quarterly reports in 2011 from jcpenny.com, the online contribution of jcpenny was 8.6% in that year, as indicated in table 7. Concerning Park & Bond, the online revenue contribution was not 100% in 2011 because it has run a pop up store for 11 days in New York in December. There is no available statistics of sales about this store, so the online revenue contribution in table 7 is calculated on the assumption that daily sales from this pop up store was the same as daily sales on internet. Since the pop up store opened in December, which was the holiday season, the sales in this store probably were higher than average daily sales of 2011. Therefore, the online revenue contribution would possibly be lower than 97%. About Amazon, although there has been a lot of rumors that it is going to open brick and mortar stores, it has never announced that it has plan of traditional stores. Thus, the online revenue contribution of Amazon was 100% in 2011. Based on the statistics of online revenue contribution, three companies can be placed on the curve that developed by Chaffey in figure 15.




			
Online Revenue Contribution	8.6%	97%	100%

Table 7. Online revenue contribution of three companies in 2011.

The vertical axis of figure 15 is change required, which indicates the changes a company needs to make according to its decision of the mix of "bricks and clicks". For instance, Amazon, compare with jcpenny, needs more radical changes such as building distribution centers, providing services completely online, etc.

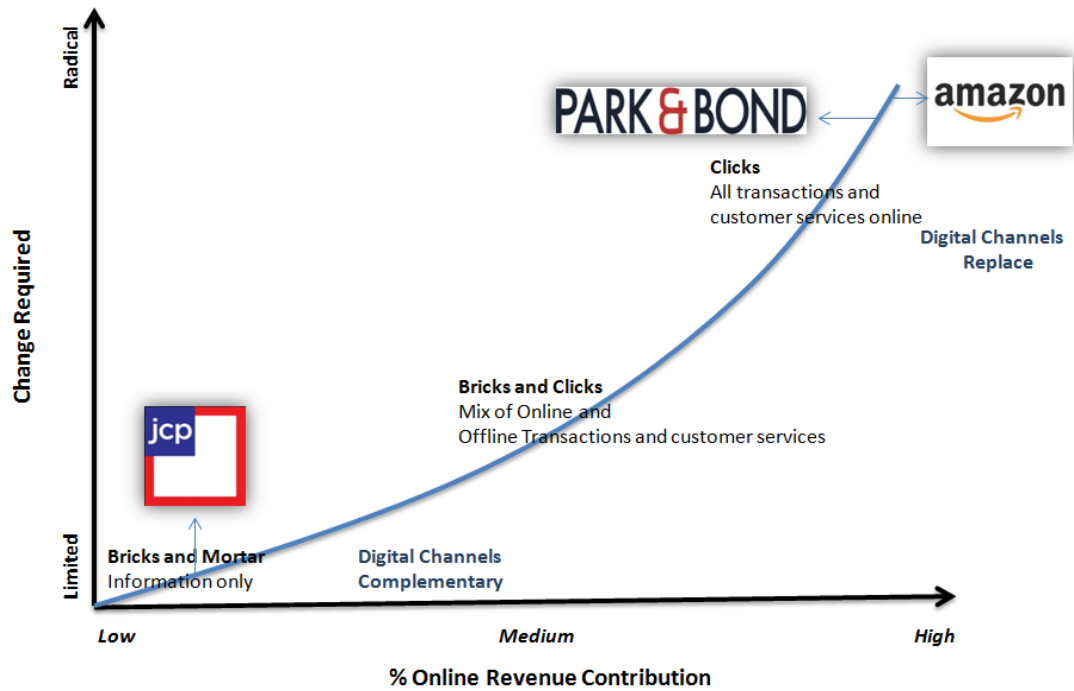


Figure 15. Importance of the internet as a channel

The following part is going to analyze companies' multi-channel strategies from two aspects: the coherence between companies' strategies and macro environment of the companies, and the coherence between product growth strategies and customers.

The strategies of three companies have big differences. JCPenney is a traditional retailer and started its transformation in 2011. The company was aiming to become Americans' favorite store by improving customers' shopping experience and making price straight forward, which means without discounts and coupons for products. There would be "streets" and "squares" in department stores for relaxing and having leisure activities. And it also planned to eliminate traditional cash stations to let customers to checkout anywhere in the stores. Therefore, there was big investment for traditional channels to change the layout and facilities of the department stores, and the online channel has not been focused. Gilt is a flash sale company. It provides luxury products with big discounts and limited time. This strategy target on the customers which want luxury brands products with good price. And Park & Bond is a website focus on luxury menswear with full price. It is a tool of Gilt to develop new customers, who is pursuing fashion and willing to pay full price for luxury products. Concerning Amazon, its strategy is keeping customer at the center by providing best services and prices.

After clarifying their strategies, the coherence between macro environment and companies' strategies is analyzed as follows. Since technologies have been developed very fast, as mentioned in Chapter 3, there are many choices for companies to manage online channel, including different outsourcing choices and different ways to present



products. Regarding to this, Amazon does not only have advanced ICT for its core website to sell products and provide services to customers, but also provide many technologies to other companies as services to make profit. It is trying to take full advantages of online channel. Considering the society aspect, based on the fact of increasing online market, it is undeniable that more and more customers are willing to do shopping online. But it is also much easier for customers to compare the price and find out discounts from different websites than ever before and they have got used to promotions and discounts especially in fashion industry. Therefore, the new strategy that Jcpenney has adopted is not corresponding with customers' shopping habits. With economic recession all over the world, customers are sensitive to price. Regarding to this aspect of macro environment, Gilt grabbed the chance to help digest luxury brands' stock and provide customers discount products. But Park & Bond is attempting to enter into full price luxury product market, which does not match the economic situation very well. And about legal aspect that need to be considered in macro environment, Amazon and Park & Bond have corresponding strategy. As mentioned in Chapter 4, United States does not collect tax from companies if they do not have any physical presence in one state. So Amazon collects five states tax United States and Park & Bond collected three states tax. Since the tax is about 5% to 9% of the products price, Park & Bond and Amazon enjoys a big price advantage compare with Jcpenney and other brick and mortar stores. However, according to the report recently, there was tax legislation in the process of approving, which would demand companies, such as Amazon, to collect tax regardless of physical presence (Sorkin 2013). So Amazon and Park & Bond might be facing tax collection situation in the near future. But different strategies can be applied depend on situations, Amazon could invest more fulfillment centers in different states and improve shipping time to increase customers' satisfaction, because it does not need to consider the old legislation of physical presence.

From the aspect of coherence between growth strategies and products, three companies also have different performance. Depending on the previous analyses, Jcpenney adopted market penetration strategies, as indicated in figure 16. Park & Bond was a tool of Gilt to implement market development strategies. It is targeting on new customer segments. Amazon has more ambitious strategies: diversification strategies. It is developing new market with new products.

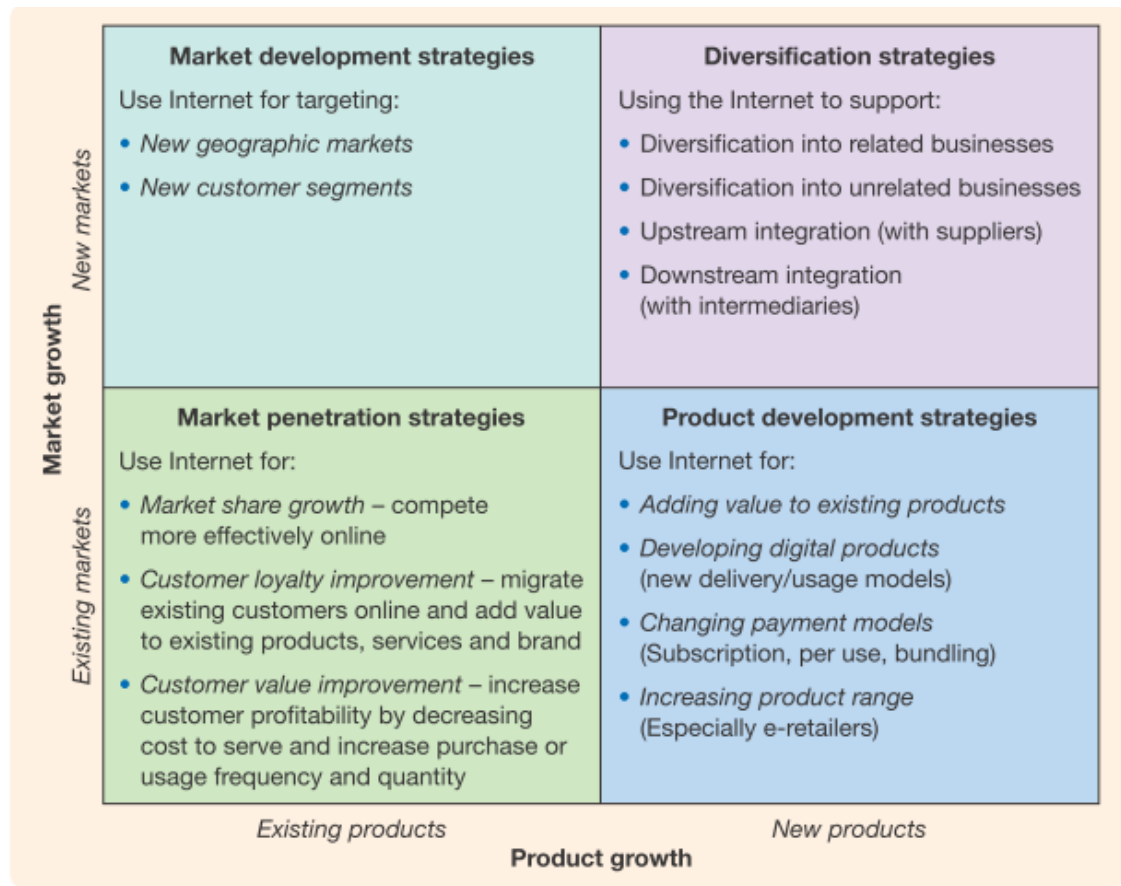


Figure 16. Product growth strategies (Daffey 2002)

The growth strategies that jcpenny adopted may lead to cannibalization than other growth strategies in the figure. But according to the information from customer service of jcpenny, the products and prices in the web store are different from brick and mortar store. The reason could be avoiding cannibalization, but also could be failing synthesizing between online channel and stores. The target group of Park & Bond is different from the customer base of Gilt. It is easy for customers shifting from high price to discount price, but it is hard in reverse. And luxury products are always presented in exclusive stores with high quality service and exquisite environment. Some customers even go to shopping because they can enjoy these shopping experiences. Therefore, if Park & Bond does not have other services that can create value for customers, customers will prefer brick and mortar stores. In fact, Park & Bond intend to cooperate with GQ magazine, as mentioned in section 4.2.1 and provide high quality reviews from editors. But those services were not delivered successfully. Therefore, brick and mortar stores are important for Park & Bond, and 11 days of pop up stores are not fulfilling the needs according to its strategies. Amazon adopted diversification strategies. Except its core website, it uses different website to target different customers. The reason is its core website has brand image of relatively low price, so it is hard for Amazon to change this impression. Three websites, which are mentioned in section 4.3.3.4, Shopbob.com, MYHABIT.COM and Zappos.com have different target groups and different strategies. And these websites, including Amazon's core website, have

different product selections according to the positions. But most of the products Amazon provides to customers could be found in traditional bricks and mortar stores. Therefore, customers could have full knowledge about the products by going to traditional stores. Because of the price advantage, more and more customers check products in traditional stores and order on Amazon. Traditional bricks and mortar stores started to response to their online competitor who is always take advantage of “show room effect”. According to the report, Target, which is a traditional retailer in United States, sent a letter to its vendors asking for help combating this effect by differentiating products or matching prices at online rivals in 2012 (Heller 2012). And it stopped to sell Amazon’s Kindle in March of 2012 (Heller 2012). Few months later, similar decision was taken by Wal-Mart, the world’s largest retail chain (Bensinger 2012). Although those decisions could not affect the clothing, shoes & jewelry category of Amazon, they are alarms of potential threats in the future.

In conclusion, jcpenny needs to pay more attention to its online channel. The decrease rate of online channel sales, according to the statistics from its report, was bigger than overall decrease rate. The reason is integration between online channel and traditional channel, as its CEO mentioned in a report: “Over the last year, jcp.com functioned as a completely separate entity inside the company, with little synergy between stores and online.” and jcpenny of online revenue contribution needs to be improved. About Park & Bond, it needs to decrease its online revenue contribution according to the analysis of its strategy. Amazon also needs to consider its structure of different channels according to macro environment and growth strategy. It may not be necessary to have a completed bricks and mortar chain in the near future, but there is need to delivery its brand image and products through traditional stores.

## **5.2. E-business Model**

According to the theory of Timmers, business models are classified by the elements of value chain, including inbound logistics, operations, outbound logistics, marketing & sales, service; and support activities technology development, procurement, human resource management, corporate infrastructure. Based on this theory, e-business models of three case companies are difined, as indicated in table 8.

	E-business models
	E-shop Virtual business community Value chain integrator
	E-shop Virtual business community
	E-shop Virtual business community Third party marketplace Value chain integrator Value chain service provider Information brokerage

*Table 8: E-business models of three case companies.*

Jcpenney combines three e-business models, including e-shop, virtual business community and value chain integrator. E-shop is its main e-business model. It provides functions of marketing and sales. Jcpenney is also a virtual business community. Customers could leave their views after receiving products. This is helpful for building customer loyalty and receiving feedback from them. However, jcpenny is hardly perceived as a successful community. Details would be discussed in customer relationship management section in this chapter. As mentioned in 4.1.3.2, jcpenny has separate warehouse and distribution system for online channel. However, according to its website, most of the orders are handled by UPS. It dose combine its online channel with traditional channel to provide pick up service, and the delivery time is 5 to 7 days. But those logistics services do not provide much value for customers.

Park & Bond is also an e-shop. But it provides an additional service, virtual fitting room, to customers. As mentioned in section 4.2.3.2, customers could “try” the products on after inputting five measurements. This is a relatively new technology to help customers to choose products. Park & Bond’s business model is different from Gilt’s flash sale model, which has similarities of e-auction. Park & Bond have cooperated with GQ magazine to provide editors’ view to customers. This provides more value regarding to virtual business community e-business model, but there is no interaction between editors and customers. In addition, similar with jcpenny, the community is silent, with few views from customers.

The e-business model of Amazon is complicated, involving e-shop, virtual business community, third party marketplace, value chain integrator, value chain service provider, and information brokerage. Amazon has well built virtual business community, with numerous active customers. Plenty views can encourage other customers to buy and increase customers' loyalty. Amazon is also a third party marketplace. It allows third party sellers to offer new and used products, so customers can buy directly from them. Amazon gains profit by charging fees from third party sellers. One is referral fee, from 6% to 25% according to different products categories. For clothing and accessories category, the referral fee is 15% of the product (Amazon 2013). Other fees are monthly selling plan fee and fixed item fee. Amazon is also a value chain service provider. It has strong logistic system, as mentioned in section 4.3.1. And enable to offer third party sellers pick, pack, store, and ship services by using its fulfillment centers. In addition, it offers advertising services to other companies. According to Amazon, it can provide ads that link to products or brands on Amazon.com, as well as tailored promotions in neighborhood.

What is more, Amazon offers platform to other companies to build websites. There are only few steps for companies to start a website according to Amazon. Using its ICT advantage to provide this value chain service to other companies, Amazon could gain sustainable profits and other companies also could reduce their IT infrastructure investments. Amazon also plays a role of value chain integrator, combining with strong logistic system, marketing and sales, technology development, and services. Amazon is an information brokerage. Because of its developed search technology, third of one line users start to search products on Amazon (Singer 2012). And it also has particular app for smart phones and tablets to help customers to find products on Amazon.com. By scanning barcodes and taking pictures, customers can get price information on Amazon or other websites. If they decide to buy on Amazon.com, one click is enough because all their information is stored by Amazon. Amazon's app store also has many other apps. It is another tool to delivery variety services to customers by Amazon. With the integration of other advantages, there will be more innovative services provided by Amazon.

In section 2.4.3, based on the degree of innovation and functional integration, 11 different e-business models are placed in figure 7. In order to analyze the e-business models' development trend, it is necessary to define the positions of three case companies. Therefore, based on the previous analyses of e-business models, three companies are placed in figure 17.

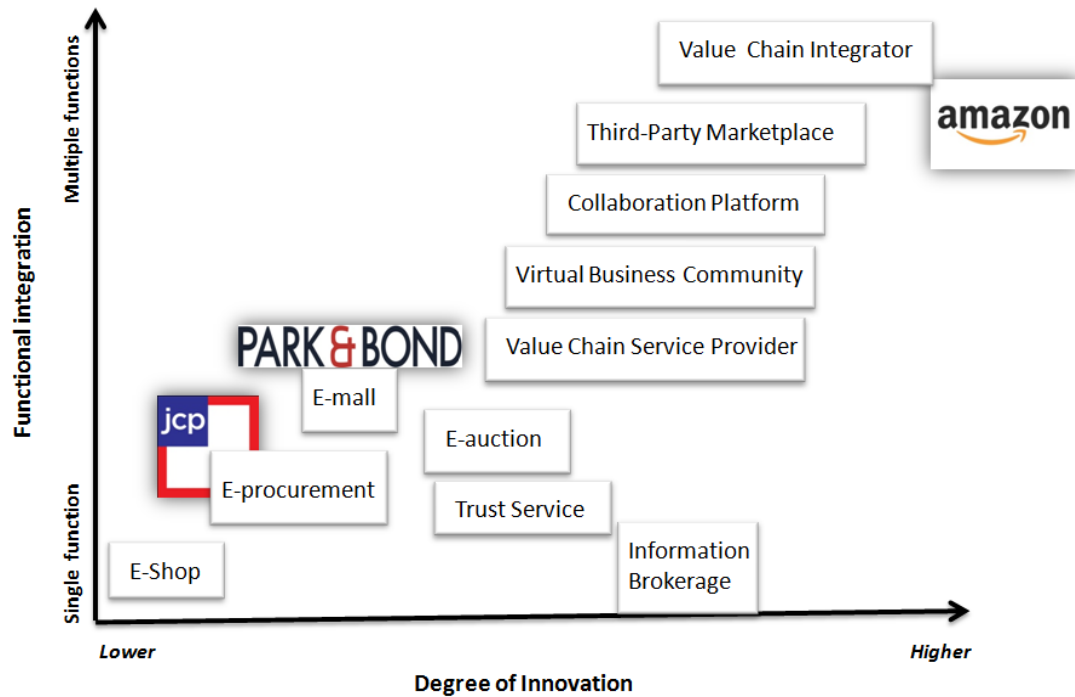


Figure 17. E-business model

After analyzing three companies' e-business models, it is obvious that e-business models with high degree of innovation and high degree of integration has more core competitiveness. For instance, Amazon could provide same day delivery service to customers. This means Amazon integrates order process, logistics, and procurement very well. On the other hand, jcpenny and Park & Bond have no same day delivery service and the shipping fees are higher than Amazon. For example, if a United States customer wants to buy a dress cost 50 dollars online, the shipping fee of Amazon is 9.98 dollars if he/she does not join Amazon prime. And it costs 15.95 dollars on Park & Bond and 25 dollars on jcpenny.

### 5.3. Marketplace Structure

Internet causes big changes to market structure, as mentioned in section 2.5.2. There are many new options for companies to choose for complementing exist cannel structure.

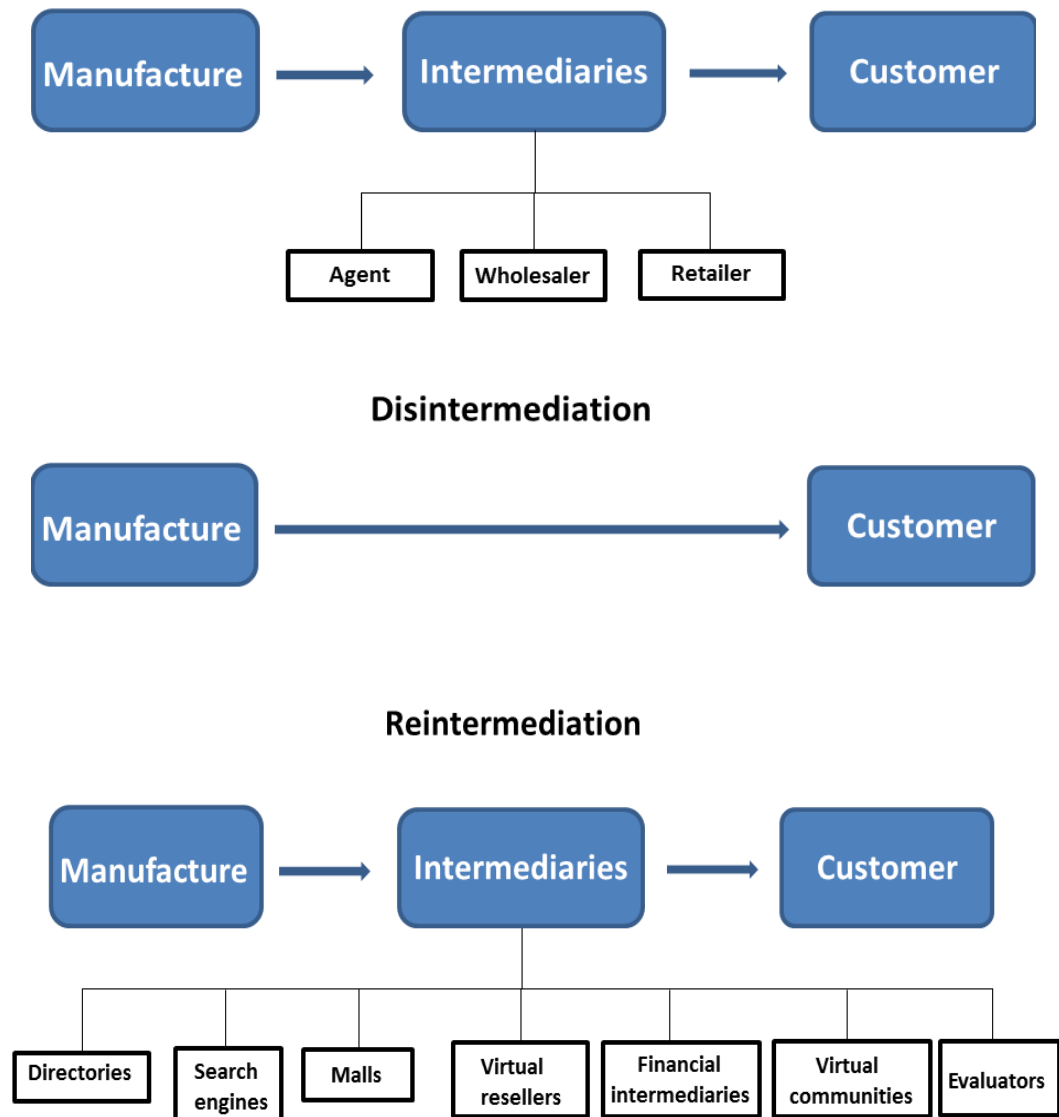


Figure 18: Disintermediation and reintermediation processes (Modified by theories from Chaffey 2002)

Jcpenney, as a traditional retailer, could be perceived as manufacture in certain circumstances. It adopted disintermediation strategy. In another word, sell directly to its customers. Many other options emerged in the process of reintermediation. For instance, jcpenny could attract more customers by improve its ranking on Google.

On the other hand, Park & Bond and Amazon are resellers which emerged in the process of reintermediation. They are options for other companies at the same time. But resellers have evolved a lot, combining different features of other intermediaries. For Park & Bond, it played role of search engines for its website, as well as virtual communities. And Amazon has many functions of other intermediaries. For example, it has functions of financial intermediaries. Besides its visa cards, it has virtual currency

for some products, which is called Amazon coins. And it also provides payment solutions that enable customers to checkout with Amazon's account information for other companies (Amazon 2013). What is more, on 16<sup>th</sup> of April, 2013, Amazon's anonymous mobile payment system was published by the United States Patent and Trademark office. This system allows customers to pay without disclosing private information to another party, and it is predicted to compete to PayPal and other financial intermediaries because its huge customer base (Whitney 2013).

#### 5.4. Marketing strategy and Customer Relationship Management

The marketing theory of 4Ps has been used as a vital part to implementing marketing strategy by many companies. It was proposed by Jerome McCarthy in 1960. And the marketing mix includes price, product, place and promotion, as indicated in table 9.



			
Price	Straightforward price	Full price	Penetration pricing strategy
Product	Limited product range	Luxury products	Big range of products
Place	Multi-channel strategy	Online only	Strong distribution system
Promotion	Without sales promotion	Cooperate with magazine	Variety promotional methods

Table 9. 4 Ps analysis of jcpenny, Park & Bond and Amazon

##### Price

Three companies have distinct price strategy based on their positioning. In jcpenny's 2011 annual report, it clarified its straightforward price strategy, including "everyday" price, "month-long" price, and "best" price. And Park & Bond full price strategy since Gilt want to develop new market. About Amazon, it is using penetration pricing strategy.



This is a strategy that a company first sells a new product in the market at a low price. After customer have become aware of the product, the company change the price higher. This strategy is applied on many products, such as Kindle.

However, a big change, starting collect taxes, would happen as mentioned in section 5.1. If the legislation is approved, Amazon is going to face the situation of losing part of its price advantage. However, there are positive results for Amazon. Its online competitors, such as Park & Bond and ebay, also need to collect tax. And because Amazon's shipping fee is always lower than companies such as jcpenny, the leading position is not going to change easily. For multi-channel competitors, Amazon has better services. In addition, Amazon could maintain its low price by use its bargaining power to force the suppliers' price down.

### **Product**

Because jcpenny, Park & Bond and Amazon are retailers, most of brands they sell belong to other companies. Therefore, the range and selection of products are vital for retailers. Take women dress category as an example, it is obvious that Amazon has far more product range than jcpenny. The number of products on Amazon's website is 60,705. On the contrast, there are only 955 products on jcpenny's website. Park & Bond is different from these two companies since it is selling luxury products. Its elaborate selection is one of the important elements for customers.

### **Place**

Multi-channel strategy is important for companies, which is mentioned in section 5.1. Complementary of different channels are necessary for every company. The difference is the proportion of different channels according to every company. The integration of different channels could be a big advantage for jcpenny if it managed well. On the other hand, since Amazon has no bricks and mortar stores, it has opened more than 50 lockers for self-service pickup in United States to avoid failed package delivery (Bensinger 2012).

### **Promotion**

Promotion is part of communication strategy (Chaffey 2002). It contains marketing communications, sales promotion, public relationship and direct marketing. These tactics are discussed in the following part according to the different stages of customer relationship management.

The first stage of customer relationship management is customer acquisition. The online marketing communication techniques include (cheffey 2003):

1. Search engine marketing
2. Online public relationship

3. Online partnership
4. E-mail marketing

Amazon preformed best in search engine marketing among three companies according to the discussion in chapter 4. It has highest visibility among four major retailers in United States in 2004. Although Jcpenney has been No.1 when customer searched certain words on Google for several months in 2011, it turned out Jcpenney violated Google's guidelines of Google by having more than 2000 paid links. Another tactic is online public relationship, including social media such as Facebook. As discussed in section 4.1.3.4, Jcpenney abandoned its old Facebook page during its transforming in 2012, losing 3 million fans of that page. After 15 months later, it has 3.8 million fans on new page. On the other hand, Amazon has 18.6 million fans on its Facebook page. Because Park & Bond has been closed, there is no Facebook page of it. Instead, the number of fans of Gilt's Facebook is 0.5 million. Concerning about online partnership, Amazon is on the leading edge since it was the earliest one to adopt affiliate program, according to the section of 4.3.3.4. This program helps Amazon to reach numerous customers by different websites and to improve its ranking on search engines by link-building. On the contrast, Park & Bond stopped its partnership with GQ magazine in February of 2012, as mentioned in section 4.1.1. Another technique is e-mail. According to Chaffey, e-mail still drives a good response level, with 10% click through rate. There are 6 e-mails sent by Jcpenney within 10 days in May, 2013. During the same period, Gilt and Amazon had sent 6 and 11 e-mails. Therefore, if the click rate is the same for three companies, Amazon is going to lead more traffic to its website.

The second stage is customer retention. Two elements, personalization and online community, is going to be discussed in the following.

One of the most important tools to achieve personalization is website content. According to the database, which stores customers' preferences and historic activities, personalization website could be presented in front of each customer. Amazon is a good example of it. As shown in Figure x, there are "Related Items You've Viewed", "Inspired by Your Browsing History" parts that recommend products according to customers' personal browsing history. What is more, customers can click "View or edit your browsing history", which in the red circle of the figure, to modify the browsing history in order to have different front page. There are many other parts that illustrate Amazon is a forerunner of personalization. And it is very convenient for customers to have a personalized dynamic website without login. On the other hand, Jcpenney and Gilt do not have such personalized services.

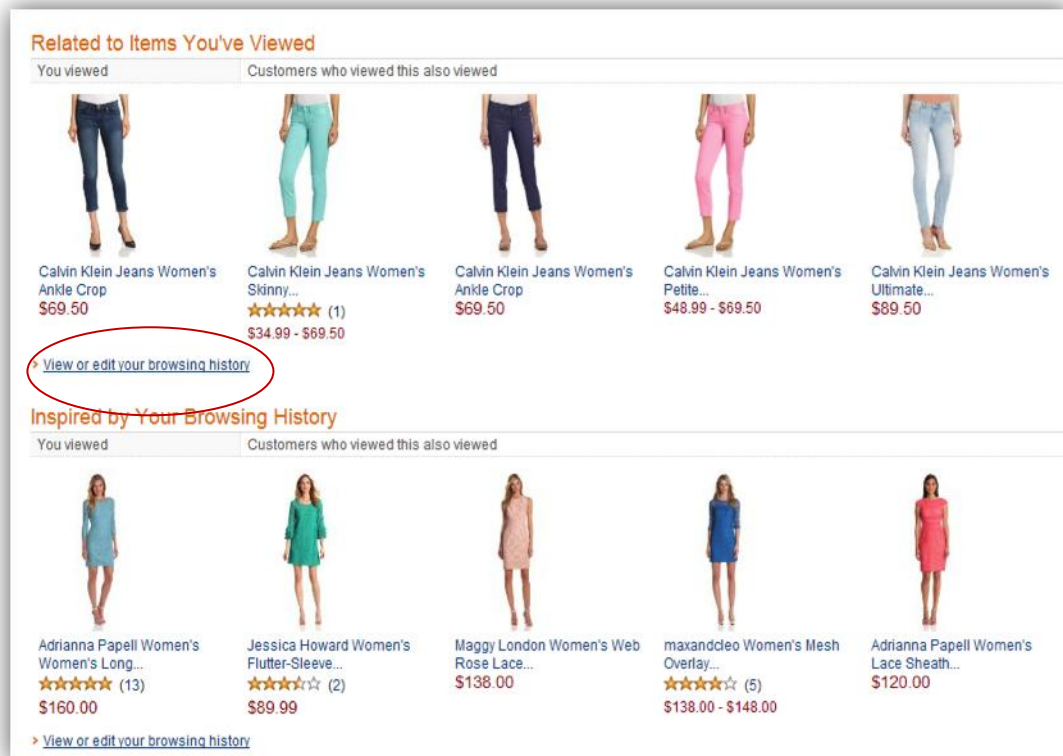


Figure 19. Personalized Amazon's front page (Amazon 2013)

Online community is another new interactive communication tool for customer retention management. It can influence the buying decision and loyalty of the customers. There are 10 invisible potential customers behind each active customer, according to Chaffey. Three companies have different performance of using this tool. As discussed in section 4.2.3.2, Park & Bond provided editors' view about products, which could hardly counted as community. This is also on account of luxury product characteristics. Jcpenney has relatively silent community because few customers give response after purchasing products. For instance, in the category of women dresses, 8% of 100 products have reviews from customers. And there are 28 reviews for the product that has most reviews. On the contrast, in the same category on Amazon's website, 21% of 100 products have reviews, with highest review number of 46. And customers can visit each other's "space" to check the reviews. Some solutions can be adopted by Jcpenney to make the community active. One is to increase the responses of customers' review. Another one is encourage customers to be active by providing different incentives. There is still a lot of space for three companies to improve, even for Amazon. For example, Amazon could have different communities target on different target groups. And customers who have similar hobby or interests will have many topics in the community, including the discussion of products.

## 5.5. Technologies

Technologies are essential for companies to gain competitive advantages. There are many options that companies can select as mentioned in chapter 3, both for internal uses and for customer interface.

Jcpenney selected Oracle to support its transforming, as mentioned in 4.2.1. Oracle is a leading vendor which provides B2C platform, and it has strong B2C multichannel applications, according to Forrester. One of 11 applications that Jcpenney selected to use is Oracle retail, which is aimed at delivering seamless cross-channel experience and encouraging customers shopping from different channels (Oracle 2013). Oracle is cooperating with Amazon to provide more options for its customers. Oracle's customers can build solutions hosted by Amazon Web Services using database and middleware software by Oracle. They can also launch software stacks from Oracle on Amazon Elastic Compute Cloud. Amazon Web Services offers infrastructure and application services to sellers in order to help them to reduce infrastructure expenses. What is more, Amazon also has services for companies to operate online stores, both on and off Amazon. One company can create its web store with the following steps: set up account, upload product inventory, design webstore, change domain, and selling on webstore. (Amazon 2013) And about Park & Bond, since it belongs to Gilt group, its service is provided by Carpathia. Carpathia is a company that provides managed hosting solutions, including managed servers, network, storage and back-ups. Gilt uses Carpathia's secure data centers in two different locations to process millions of dollars in transactions, also to store other information. (Boodoosingh 2013)

Web site is essential for companies because it is the bridge between companies and customers. It used as a tool to deliver services and variety of information to customers.

To analyze three companies' websites from the perspective of ease of use, Amazon have better performance. The reasons are follows. First, as mentioned in this section, customers will have an automatic login page. Second, there are 12 parts that can be managed by customers, including orders, wish list, recommendations, save items, kindle, cloud drive, etc. On the other hand, Jcpenney just has account, profile setting, and favorite lists for customers to manage. Although Park & Bond, which is merged with Gilt man, has 12 parts, the content is much less than Amazon. In addition, both Park & Bond and Jcpenney need to be login in order to check account, which is not very convenient for customers.

From another perspective, information of products, companies have different technologies to provide information to their customers. And the biggest difference is "virtual fitting room", as indicated in table 10.

			Jcpeeney	Park&Bond	Amazon
<b>Finding assistance</b>	Search and selection		✓	✓	✓
	Recommendation technology		✓	✓	✓
<b>Environment tools</b>	Music and video technology		✗	✗	✗
	Advertisement technology		✓	✓	✓
<b>Product specification</b>	2D technology	2D F-B view	✓	✓	✓
		2D large view	✓	✓	✓
	3D technology	3D rotation view	✗	✗	✗
		3D large view	✗	✗	✗
	Zoom technology		✓	✓	✓
	Size Information		✓	✓	✓
	Garment combination		✓	✓	✓
	Virtual mannequin		✗	✓	✗
	Virtual runway		✗	✗	✓
<b>Interactive tools</b>	Mix & Match		✗	✗	✗
	Product/retailer live chat		✗	✗	✗
	Fit/size chat and advice		✗	✓	✗
	Body measurement technology		✗	✗	✗
	Virtual fitting room		✗	✓	✗

Table 10. Technologies used by jcpenny, Park & Bond, and Amazon

As discussed in section 3.2, virtual fitting technologies can increase 19% of conversion rate and 16% of online sales. Therefore, virtual fitting technologies play an important role in product presentation. And according to the study of Kim and Forsythe, customers' attitude of using virtual fitting technologies is determined by perceived usefulness and perceived entertainment. So companies need to consider both aspects in order to attract customers to use their fitting service.

Park & Bond used the solution of Fits.Me, which is discussed in section 4.2.3.2. The result after customer inputting their measurements is very realistic. Thus, perceived usefulness is relatively higher than other technologies as mentioned in 3.2, such as MIMICME. And regarding perceived entertainment, although Fits.Me is not as good as interactive virtual fitting room with augmented reality technologies, it can help customers to try on different sizes' products and provide recommendations to them. There are only a few technologies that have good performances on both aspects. However, it has some limitations, including sending samples to Fits.Me to take pictures. This is vital for Park & Bond since it provides luxury products, which have limited product quantity. On the contrast, Amazon has video instead of virtual fitting technology. The video is automatically played when customers enter to the page of products. This is a dynamic way to present its products, which is more effective than static pictures. But customers just have the result of product on model, without trying on service and size advice.

## 6. CONCLUSION

Based on analysis and discussion, it can be concluded that online channel is indispensable for companies. It is a sustainable strategy that complement with traditional channel on many aspects. But the proportion of online revenue contribution may vary from company to company, which is determined by companies' strategy.

And it is vital for companies to choose proper business model to achieve their objectives. Simple e-business model with few functions, such as e-shop, cannot improve companies' competitiveness a lot. On the contrast, it will lead to cannibalism at the beginning because of overlapping products. Therefore, suitable e-business models are used by companies to achieve differentiation and gain competitiveness. If a company adopts an e-business model with high degree of innovation and high degree of integration, it can provide more values to customers.

The change of market structure caused by internet brings many options to companies. Many companies are outcomes of this change, such as Amazon and Park & Bond, and other companies have more choices for adopting online channel. The combination and coherence of intermediaries are important for companies to achieve their goals.

Marketing and customer relationship management tactics are specific tools of implementing e-business strategy. Meanwhile, product and price in marketing mix can be used to create differentiation from other competitors, as well as to avoid channel conflicts. Promotion and place from the marketing theory of 4Ps are communication ways chose by companies, but without interaction with customers. Therefore, CRM is essential for companies because it can play the role to achieve the goal of interacting. The core of CRM is personalization, including contents of website, customized e-mail services, etc. It can enhance customers' loyalty and satisfaction.

All strategies and tactics mentioned above need to be achieved through technologies. Companies need to choose an appropriate platform to present products and communicate with customers. Technologies such as virtual fitting technology are important for increasing online sales and decreasing return rate. However, it takes time to improve this technology in order to be widely used by companies and customers.

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